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REGISTRATION

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ARTICLES

DEPARTMENTS

This special issue of the Defense Management Journal covers the Federal Management Improvement Conference held September 21–22 in Washington, D.C., and replaces the regular Fall 1970 issue.

Defense Management Journal

Conference Potpourri

Should government employees have the right to strike? (Page 20.)

Does the Defense Department keep its civilians in managerial positions too long and retire its military officer personnel too soon? (Page 14.)

Are the Fitzhugh Blue Ribbon Defense Panel's statements on overstaffing in headquarters elements of DoD "extreme" and "unsupported"? (Page 52.)

Provocative questions all—and hardly elixir for ulcer-prone Government executives. Yet, that was some of the ungarnished fare served 550 top level managers at the 1970 Federal Management Improvement Conference in Washington, D.C. on September 21–22. Objective? "To kindle," said the Conference Program, "the kind of intellectual fires that inspire creative management."

We asked several conference participants whether, in retrospect, the kindling flamed or sputtered. In this issue of the Defense Management Journal, these executives tell us how they saw it—not necessarily how it was.

Surprisingly, bureaucracy takes a beating from the bureaucrats.

- *Too much upper level second guessing*—says the No. 2 man in a sizeable Defense agency. "Control, policymaking and operational decisionmaking have tended to merge at the top of the pyramid with the workers and middle management having a diminishing voice in their fomulation." (Page 14.)
- *Too many systems*—says an Air Force colonel who adds that "Systems designed to help people by letting the organization serve them better, actually cause inconvenience to these same people by forcing them to 'service the system'." (Page 25.)
- *Too many computers*—says the Comptroller General of the United States. "Feasibility studies have been inadequate; capability has been overprocured; output utilization has, in some cases, been scant; necessary interfaces of systems and programs have

been neglected; and cost-effectiveness calculations have been slanted by the siren lure of sophistication." (Page 6.)

Not everyone indulges in the mood, i.e., castigate the headquarters staffs, glorify the "producers" on the firing line, and damn the computers.

- For wounded headquarters staffs, one author tosses off this sympathetic filip: "* * * unfortunately our government system was geared to reward the production type for short term achievement and conformity more than the problem solver who concerns himself more with long range results." (Page 35.)
- To deflate the operators, the same critic notes that, not infrequently, the producer's reward is promotion to problem-solver where—as *Parkinson's Law*, *The Peter Principle* or *Up the Organization* might have it—he rises to his "highest level of inefficiency." (Page 35.)
- To give the computers and planners their due, a public affairs specialist points out that "computers, like bikinis, merely surface the basic data" which analysts then must necessarily "condense, strain, and interpret." (Page 40.) Illustratively, another defender of the computer tells how Department of Agriculture scientists wired cows to computers to develop an optimum feed—an experiment that led to a 20-percent increase in U.S. milk production. (Page 31.)

Perhaps the most persistent theme to emerge from the conference dealt with the need for goals that really motivate. More than one conferee recognized NASA's "Man on the Moon" objective as being much more dramatically down-to-earth (to mix a metaphor) than such generalized aspirations as "eliminate poverty" and "prevent pollution" and "reduce crime." Anent this contrasting oomph in rallying cries, a Deputy Assistant Secretary of the Air Force comes up with as astute an Rx for successful goal-setting as any we have

1

seen. He observes that broad social goals "noble though they may be, largely lack the distinctive features of Apollo and/or Defense-oriented programs where a definable task, assigned to a single agency, approved and sanctioned by the President and the Congress, can be organized, broken into sub-elements, planned and executed within the definition of agreed conditions." (Page 18.)

Predictably, the conferees stressed "people" as much as they did goals and systems—perhaps more. On balance the specialist came off second best to the generalist. Even as specialized a calling as audit received a generalist come-uppance from the Deputy Comptroller of the Army who says: "* * * an accounting background for the auditor is secondary to his knowledge of management, management improvement techniques, logistics, personnel, and military organization." (Page 43.)

"Generalism" was bound to have stronger backing among the conferees than among Government workers at large where a State of Massachusetts planning official is reported to have said, "70 percent of Federal civil servants spend their careers in a single speciality or function." (Page 28.) This official is also said to have noted that the Federal service is not quite as parochial as the Massachusetts civil service where,

"99 percent of the civil servants are single-specialty oriented."

Is the issue really *generalist* vs. *specialist?* After all, if everyone knew something about everything who then would know everything about something? Maybe the more relevant issue is *leadership.* "Unfortunately," says a manpower planner, "the personnel researchers have not yet devised a method to select supervisors with outstanding potential for leadership." (Page 53.)

If the management researchers haven't found the key, some practitioners have. An Assistant Secretary of Defense looks at it this way: "The effective manager is the man who has a track record for getting big results with minimum turbulence. His reputation is topnotch for getting the job done. He has the respect of his peers. More than that, he has the confidence of his superiors. These are subjective values but, in final analysis, they are the only really relevant values." (Page 5.)

The Conference's last chalk end and pencilled doodle have long since hit the wastebasket but a question still remains. It is not whether a conferee is applying what he learned from his colleagues. The question is whether he is applying what he taught his colleagues or whether, like Portia, he is commiserating: "I can easier teach 20 what were good to be done, than be one of the 20 to follow mine own teaching."

OVERMANAGEMENT—

AND ITS CURE

I AM TOLD that Casey Stengel once tried to show an inept left fielder just how that position should be played. The first hit went over Casey's head. The second rolled between his legs. The third went whizzing by. Baseball lore has it that the chagrined Casey stomped back to the dugout and bellowed to his left fielder: "You've got left field so fouled up, nobody can play it."

From the statements made by Secretaries Laird and Packard, I'm sure the Department of Defense sometimes looks like Casey's left field to them.

The story may be apocryphal—but the principle is clear. You don't fault the job to be done. You simply get a better fielder. You train him. You motivate him. You tell him what you expect of him. You evaluate his performance—and if it doesn't measure up, you look again for an even better player.

A great American, and a great manager, died recently—Vince Lombardi. No one knew the formula for success better than he: the right people in the right slots—people who knew what to do—and were highly motivated to do it. But, more than that, he would tell you that the front office is the worst place to get a run-or-pass decision when it's fourth down and goal to go.

And *that,* unfortunately, is the problem with management in the Department of Defense today. There are too many people calling signals to the man who has the job to do.

The analogy stops there. National defense certainly is no ballgame. It's a critically serious business. Men's lives—and our freedoms—depend on it. Defense is extremely costly—over $70 billion a year—and the only profit and loss statement you can show for that is the success of our diplomacy, the continued trust of our friends internationally and the respectful restraint of those who may not be our friends.
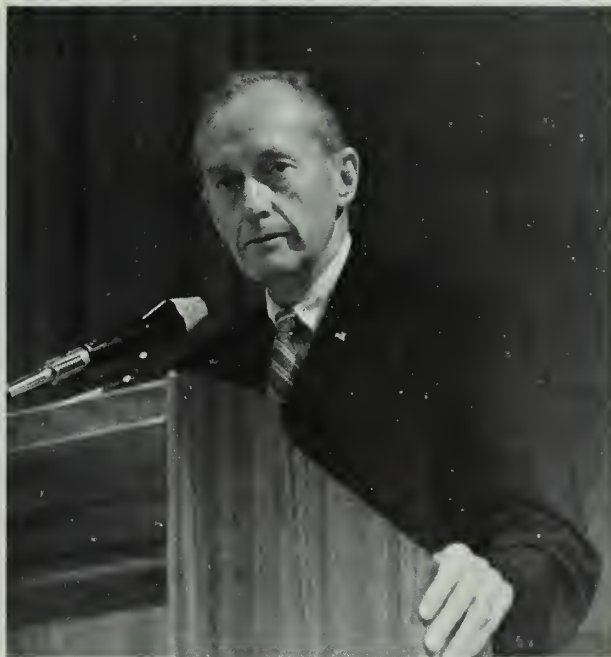
By **BARRY SHILLITO**
Assistant Secretary of Defense
Installations and Logistics

Dave Packard who most of you know has had extensive industrial management experience would tell you that Defense is also the toughest business in the world to manage. I am sure that Secretary Laird and all his predecessors would agree.

Over the years—as the Department of Defense grew, as technology became more complicated and weaponry more expensive—top management sought out the systems, the programs, and techniques to make the organization manageable—to get, as the cliche goes, the necessary defense for the least dollars. Too often, the answer was more centralized control, more centralized review, and, of course, more intermediate echelons to process the paper and, inevitably, more controls to control the controllers.

It is interesting to note that the Office of the Secretary of Defense has more than 1,000 DoD directives and instructions, many of them quite voluminous. And that is only the tip of the iceberg. It does not include the regulations, manuals, self-perpetuating memoranda, and other detailed guidance issued by headquarters staffs in the military departments. Last year, in OSD alone, 44 new directives and instructions were issued and more than 300 were overhauled and updated. Only 46 were canceled.

Somewhere in this bureaucratic explosion, top management lost sight of the fact that 10 sentences on two tablets sufficed to mold the conscience of Western civilization—without revisions.

As we get into this subject in greater depth it's appalling to realize that the number of recurring reports authorized by the Office of the Secretary of Defense and the headquarters of the three military departments probably exceeds 5,000. OSD—which receives about 400 of these reports—canceled 47 of them last year. If that sounds like progress, don't believe it, because, in the same year, OSD authorized 38 new reports. The year-end result was almost a standoff. Worse still, I am told that this is the first time that old report cancellations exceeded new report authorizations.

These tallies on the quantity of directives and reports are not aimed at impressing you with the overwhelming mountains of paper that management must contend with. Rather, my intent is to call your attention to the bureaucratic ailments that they symptomize—and they are: overmanagement and overcontrol.

At the moment, we are treating the symptoms.

—We are taking a brand new look at all DoD directives and instructions. Many have already been eliminated and many more will be eliminated.

—For the past 6 months the Defense Comptroller—as part of a Government-wide review—has been scrutinizing every report requirement emanating from OSD. There have been some cancellations. There will be many more.

But, I repeat, these screening activities deal only with the symptoms of overcontrol and overmanagement. To get to the roots of the problem, we have to clear the channel between the man who sets the policy and the man who has to carry it out. In plain language this means five things:

—First, it means setting clear, unequivocal policies that stop short of crossing every "t" and dotting every "i" for the men who must make the operational decisions.

—Second, it means ridding Defense organizations of staffs that are remote from the actual operations but whose reviews and commentaries contribute to the problem rather than to the solution.

—Third, it means selecting managers on their records of performance—not on their records of longevity.

—Fourth, it means letting the managers who are selected know clearly what is expected of them, that is, pinpointing their responsibilities.

—Finally, it means giving those managers the authority they need to meet their responsibilities.

In short, it means designing a system that will support the manager rather than employing managers to justify the existing system.

Remember "Mr. Adam"—that best-selling satire of the mid-1940's on bureaucratic overmanagement? Mr. Adam, you may recall, was the only male left in the world who retained the power to reproduce. He became a national resource. The Government built a bureaucracy around him. The organization had a Director, Assistant Directors, Associate Directors, planning staffs, programing staffs, and what have you. At the very lowest level of this vast pyramid, at an obscure site in the dungeons of the bureaucracy, was an office labeled "Operations." Its sole occupant was Mr. Adam.

Mel Laird and Dave Packard are determined to see that the operating managers in Defense are not relegated to Mr. Adam's place in the bureaucratic dungeon.

The men who buy our weapons systems, the cadres who man these weapons, and the managers who logistically support them are the people whose judgments and actions really determine whether our Defense is good, bad, or indifferent. The policies, procedures, management systems, and organizations of the Department of Defense must be alined to help them get their jobs done right.

Apart from making or approving the policies that guide the operating manager, top management's staff has one other basic responsibility. That responsibility is to monitor or evaluate performance against approved policy—and that includes the performance of organizations, management systems, operations, and people.

We try to practice what we preach.

For *organizational* evaluation, Defense has had some pretty high-powered talent looking into the entire Defense setup. A Blue Ribbon Defense Panel of nationally recognized management experts worked for 1 year to come up with 113 substantive recommendations. Mel Laird and Dave Packard are convinced that the best way to get the most mileage out of these recommendations is to have them scrutinized in concert by the people who may be charged with their implementation. Since capable experts seldom approach a problem from precisely the same viewpoint, more attractive solutions may emerge from this conflict of ideas.

To make this participatory management work for us, they have set up an all-Service Blue Ribbon Action Committee to help us in implementing the decisions we make in response to the recommendations of the Blue Ribbon Defense Panel. The approach is to focus as many collective brains on the problem as we can muster. This Action Committee will work out the details of the implementing orders, directives and instructions so that there will be no interruption to continued combat readiness of our forces.

On the *systems* side, a Joint Logistics Review Board, consisting of high military officials, has reviewed our worldwide logistics support to combat forces. General Besson, who chaired this Board, is now assigned to my office to see that the Board's recommendations are implemented.

These two kinds of top-level evaluations are a necessary part of organizational life. They aim at steadying the ship on course.

A third kind of evaluation which has recently been established is handled by a Defense System Acquisition Review Council. This Council, consisting of key Defense Department executives, advises Mel Laird and Dave Packard on proceeding with the development and procurement of major weapons systems at each critical phase in the acquisition process. There are three such critical points on each major program prior to the program being authorized for production. Each of these three reviews on each program is a very thorough analysis of the program. I suppose that you might call this an *operational* evaluation since it deals with specific weapons systems. The function of this evaluation is to satisfy the Secretary of Defense that the responsible military service has brought the particular weapons system program far enough along to release funds for the next step. Yes, it is a "control"; but it is one that we hope—in time—to relax to some extent as the Services demonstrate an improved capability.

Finally, and most important, there is the evaluation of the *manager's performance*. Everyone knows the principle: give the good manager a pat on the back and show the bad manager the door. The trick is to tell the good from the bad—and to do that in time to prevent the massive overrun or the seriously slipped schedule or the sizeable logistical shortfall or the development and production of unsatisfactory equipment. That is a tall order under conditions where a major weapon system gestates 7 to 10 years from drawing board to delivery while managerial rotations, resignations, retirements, etc., constantly revamp the batting order.

On the technical side, the answer is to test, evaluate, and correct at every critical stage.

On the human side, the formula is harder to come by. I have yet to see the statistics that will give you the true measure of a man. Practically everything a manager in Government does today must be done with and through other people, and the quality of that kind of relationship is well nigh impossible to reduce to a statistic.

The effective manager is the man who has a track record for getting big results with minimum turbulence. His reputation is topnotch for getting the job done. He has the respect of his peers. More than that, he has the confidence of his superiors. These are subjective values but, in final analysis, they are the only really relevant values.

Confidence is the key—the inspirational factor. A man who knows that he enjoys the confidence of his superiors will be self-assured enough to manage aggressively; he will be motivated enough to render quality judgment; and he will be free enough to move out on the real problems and lick them. □

5

POTENTIALS FOR MANAGEMENT IMPROVEMENT*

"PPB must be applied carefully and properly, recognizing that experience and judgment must play a vital, if not decisive, role in decisionmaking. It is a tool—nothing more—to supply the facts and the discipline for analyses essential to more effective program decisions."

By **ELMER B. STAATS**
*Comptroller General
of the United States*

I can't give you an overall evaluation of management practices within the Government, or even within one department or agency. But I will try to give you some views on particular activities within the Government where, we believe, there is a great potential for improvement.

Computer Problems

The managers of today are fortunate in being able to obtain needed information on a timely basis by the use of electronic equipment. Its speed and accuracy—with proper programing and input—are amazing.

Literally billions of dollars are spent annually in buying and using computers, and the end is not in sight. Computers have made possible many significant technological advancements. However, a high percentage of computer installations have been found seriously lacking in important respects.

Feasibility studies have been inadequate; capability has been overprocured; output utilization has, in some cases, been scant; necessary interface of systems and programs have been neglected; and cost-effectiveness calculations have been slanted by the siren lure of sophistication. These and other problems of computer management must be addressed if our society is to obtain maximum benefit from these highly sophisticated creations.

On July 1, 1970, I spoke before the Subcommittee on Economy in Government, Joint Economic Committee, concerning the need for procurement procedures which would afford free and full competition to all qualified potential bidders, including the small manufacturers of peripheral equipment.

The reviews we have made support the Committee's recommendation that the General Services Administration should make it possible for smaller manufacturers of ADP equipment to furnish part of the Government's requirements. Specifications should not be designed around specific products with the effect of eliminating competition and stifling the incentives of smaller manufacturers. Our studies of the potential savings available by the acquisition of peripherial equipment from independent manufacturers showed that, if compatible components were rented from independent manufacturers rather than from systems manufacturers, annual savings would amount to at

*Adapted from remarks at the Federal Management Improvement Conference, Sept. 21, 1970.

least $5 million. We estimated that, if such components were to be purchased, they could be purchased for $23 million less from the component manufacturers than from the systems manufacturers.

Executive agencies have been and are now required to submit information on their computer resources in accordance with Bureau of the Budget circulars A–55 and A–83. Our reviews have shown, however, that the reporting system does not produce the accurate, complete, and useful information needed for proper management decisions on procurement, utilization, and reutilization of ADP resources. More realistic and timely projections of acquisitions and releases of equipment are needed to improve reutilization and Government-wide contract negotiations and to prevent unneeded purchases. More information on software and its use in Government operations is needed to reduce duplication of effort and unnecessary costs.

Financial Management Problems

Some operating managers tend to look upon financial management as just another "thorn in the side," interfering with their day-to-day operating responsibilities. It is too bad, perhaps, that we must worry about money—it would be great if we had so much that it wasn't a concern in, or a limitation on, reaching our objectives. But the competing needs for our limited resources make it essential that we put money to the best use and stretch it as far as possible. That's what financial management is all about, and, despite the current disdain for our materialistic society, good financial management is essential.

It is the means of directing our resources to the objectives determined to have the highest priority; the safeguarding of those resources to prevent their loss, theft, or waste; the stretching of those resources to do the most good—in essence, the technique of getting the most out of what we put in. It includes identification of what is to be done, what we have to do it with, and what more is needed, as well as monitoring of the use made of those resources and their productivity.

A good financial management system will provide the information needed for the manager to function. He must recognize its value and know how to use it. Those responsible for the system must see that it provides this service.

The Importance of Work Measurement Development to Financial Management

As previously stated, financial data becomes much more useful when it is associated with appropriate nonfinancial data. How meaningful is it to know that a given organizational unit cost $300,000 this year compared with the cost of $350,000 last year for an organizational unit with the same title? The two units may be alike in title only, for there may be different workloads and different objectives. However, when comparable work measurement units are used to express financial data in terms of unit costs, real meaning is brought to the financial data.

Our experiences in the Department of Defense with Project PRIME are a case in point. This financial management system was well conceived, and it is producing quantities of financial data—more than some levels of management can use effectively. Management cannot fully use the data until it is possible to align the financial data with meaningful work measurement units.

Control of Federal Grant-in-Aid Programs

It would be hard to find an area of Government activity today with problems of financial management more pressing or more difficult than Federal grants-in-aid. From rather modest beginnings, quite a long time ago, this means of assisting the financing of services provided by State and local governments has reached gigantic proportions.

This growth is the result of political decisions made in response to problems brought on by technological, economic, and sociological changes in society. In 1968 Federal grants-in-aid amounted to about $18 billion a year, an increase of about $13 billion in the 10-year period from the beginning of 1959. Federal grants-in-aid are now running over $27 billion a year, or over 13 percent of the total Federal budget, and represent an increase of over $9 billion in the last 2 years. Apparently this form of assistance will continue to grow,

unless major changes are made in our system of financial services to be performed by governmental bodies.

The Federal Government has been drawn into the picture because of its financial resources and concern for the general welfare of the residents of all States, as well as the fact that certain problems transcend the jurisdiction of individual State and local governments.

A major problem facing Federal managers is the need to strengthen the audit function at State and local levels. Some States have developed good audit programs which serve to assist in the management of State government operations and at the same time provide an extension of the Federal audit effort which benefits the Federal manager. Some States have audit programs which are in a developmental status. However, others are still making primarily voucher-type audits, which are helpful but which do not provide appraisals of efficiency of operation or of extent of compliance with prescribed requirements.

Many public accountants, who perform the bulk of the work for cities and counties, see their responsibilities as being related only to the fairness of financial statements. Most do not perform operational or management audits, nor are they urged by their clients to do so.

Last October, under an agreement with the Bureau of the Budget, the General Accounting Office assumed responsibility for a project of directing the organization and operation of an interagency working group to develop standards and guidelines for the audit of Federal assistance programs.

The long-range objective of this effort is to improve program operations through improved auditing by Federal, State, local, and outside agencies and through effective coordination between them.

Management problems similar to those in the Federal grants-in-aid to State and local governments are also present in programs where U.S. aid funds are turned over to international organizations and lending institutions.

Federal assistance programs probably will increase in the future, and there will be a corresponding need for more effective management of these programs.

Measuring Human Productivity

Much of our recent work has indicated to us that managers everywhere are developing new or increased awareness of the importance of human effort as a critical resource. As one Defense official recently observed, so much attention has been given to money as a resource that the term "financial management" and its concepts are well defined and are widely accepted, but comparatively little attention has been given to manpower *as a resource*. We agree that the time is ripe to build some "manpower management" concepts.

This is not meant to imply that nothing is now being done. Many projects have been undertaken that appear to be solid groundwork for a new direction. There are many indications that agency management is giving intensified attention to such matters as staffing standards, performance appraisals, performance goals, and personnel training and development. These are needed for better manpower management.

However, most of these concepts and techniques have been in the area of measures of productivity of people in physical operations. Little has been accomplished in measuring productivity of people engaged in administrative work. This problem has, to date, not been resolved and constitutes a real challenge for management.

Our work in the manpower area has demonstrated the significance of manpower factors in program management. We are convinced that there is a constant need for more emphasis on manpower training as an essential part of an agency's overall management.

Some factors affecting manpower are within the control and authority of operational managers. Others are controlled from the outside or from higher levels. One of the most obvious of the controls beyond the discretion of managers is the ultimate limit on resources which can be made available. The most familiar is personnel ceilings or limitations or, more recently, the hiring limitation imposed by the Revenue and Expenditures Control Act of 1968. There is also the overall limit on money which comes down to the managers through budgetary processes.

Availability of skills within our total national manpower resources is also an important limitation. This scarcity causes competition for services in which compensation, mobility, fringe benefits, and job challenges are important considerations. This critical resource requires management's close and continuing attention.

Cost Reduction-Value Engineering Problems

Recently we were asked for our observations and suggestions concerning statements to the Chairman, President's Advisory Council on Management Improvements, relative to the results of Congressman Larry Winn, Jr.'s, survey of the effectiveness of cost reduction programs and on the current degree of utilization of value analysis-engineering within the Federal Government. We share Congressman Winn's view that more can be done to promote cost reduction-value engineering programs within Government agencies.

Because of the significance and the long-range nature of the cost reduction program, we reviewed the operation of the program in five departments and agencies. Our objective was to consider possibilities for improving the program. We concluded that a cost reduction program is a useful tool of management in developing cost consciousness in employees and in motivating the development of cost-saving ideas and techniques. We

noted that in some departments and agencies the program had been aggressively implemented but that in others little effort had been made to use the program forcefully for the purposes intended.

In 1969 we furnished to the Congress our observations on opportunities for increased savings by improving the management of value engineering performed by Department of Defense contractors. The Department had reported value engineering cost reductions of about $170 million for the 5 fiscal years through 1968. Many contracts under which value engineering effort was voluntary, however, had not produced the desired results.

The contractors had not been stimulated to develop proposals to reduce costs of design and manufacture of products even though they would share in the cost savings.

We believe that new techniques are needed to stimulate the interest and participation of contractors in value engineering. For example, improvements in the value engineering performance of contractors can be achieved if Department of Defense officials will identify specific programs that are most susceptible to value engineering and will suggest to contractors that they concentrate their efforts on these programs.

Value analysis-engineering and cost reduction programs are needed to ensure that opportunities to reduce costs are identified and implemented.

Defense Procurement Problems

During past and present GAO examinations in the research and development areas, we have found opportunities for improvement in the management of the development and procurement of Department of Defense weapon systems. Improvement is needed (1) in the generation and approval of specific performance, schedule, and cost requirements for the end-items and (2) in the commitment of material to production and use prior to the completion of development, as evidenced by satisfactory results obtained in all necessary tests.

The first of these problem areas is more simply termed "requirements determination." The second of these areas is commonly referred to as concurrent development and production, or concurrency. These two problem areas are regarded as the basic causes for most of the substandard performance, schedule slippages, and cost overruns which have occurred, and continue to occur, on major weapon systems.

Deputy Secretary of Defense David Packard emphasized these problems in a memorandum in July 1969 to the Secretaries of the three military departments. He pinpointed three areas of immediate concern: (1) Cost growth, (2) a need for increasing insistence on hardware demonstration with less dependence on "paper analysis," and (3) widespread deficiency in the amount of test evaluation of weapon systems prior to the commitment of significant resources to production.

Mr. Packard further emphasized the need for improved management in his address to the Armed Forces Management Association in Los Angeles last month. The major thrust of his message was that:

1. Defense should be buying only what it actually needs—not what industry or anyone else thinks it can develop.
2. The Department has been overly optimistic on cost estimates and overly demanding in its requirements.
3. Industry has been unrealistic in its promises with respect to performance and cost.
4. If the Department and industry do not take needed steps, the Congress will try to take them—probably by inflexible rules that wouldn't necessarily provide the best solution.

We have emphasized examinations of the problem areas since early 1967, and the results of this work have been given extensive coverage in congressional hearings and in discussions on the floor of the Congress. The receptivity of the Department of Defense to the results of this work has been excellent.

We shall continue to emphasize management improvement opportunities in our reviews of Defense procurements.

Commission on Government Procurement

In November 1969 the Congress established the Commission on Government Procurement to conduct broad studies of the Government's current procurement statutes, regulations, policies, and procedures.

In our opinion, Government procurement is so burdened with complex statutes and regulations and is so interrelated with other governmental, social, and economic programs and policies that substantial improvements can be made which would benefit both Government and business. We believe that the problems have grown out of the following factors.

—In general, the piecemeal evolution of Federal procurement law was designed to solve or alleviate specific, and sometimes narrow, problems as they arose.
—Federal procurement statutes are chiefly concerned with procurement authority and procedures and do not contain clear expressions of Government procurement policies.
—Implementing procurement regulations are voluminous, exceedingly complex, and at times difficult to apply, and they have great impact on the rights and obligations of contractors.
—The level of spending for Government procurement is high. For fiscal year 1968 the Department of Defense alone awarded contracts totaling about

9

$43 million for supplies and services which represented about 80 percent of total Government procurement expenditures.

We will give our full cooperation and assistance to the Commission during its study.

Planning-Programing-Budgeting

No discussion concerning management would be complete without mentioning planning, programing, and budgeting. This concept, which had worked well in the Department of Defense, was prescribed by the President in August 1965 for use in all major Federal agencies.

It was to be used for three essential purposes:

- To define national goals and identify those considered most urgent.
- To determine alternative ways of attaining those goals and the probable costs.
- To improve performance by attaining the best possible program return for each dollar spent.

Stated another way: PPB is a method for analyzing and deciding on programs in terms of measured results related to costs. It is a system:

> For dealing with difficult problems of choice by considering alternative objectives and programs.
> For defining programs, outputs, and resource requirements with increased precision.
> For developing multiyear planning of desired objectives in relation to systems costs.
> For carefully considering the benefits and costs of existing programs and for comparing alternative courses of action.

Since 1965, installation of PPB systems has moved steadily forward under the direction of the Director of the Bureau of the Budget—more recently the Office of Management and Budget.

In some agencies the system has contributed to more effective management and more efficient program operations. In others, it appears more a promise than a reality. As indicated earlier, the Defense Department has been in the vanguard in applying the new analytical techniques involved in PPB. There the classic application of these problem-solving approaches has focused on the complexities of force structure and support. These things are more readily quantifiable. For example, planners can evaluate whether a given quantity of airplanes, weighing a given tonnage, and costing a specific amount to produce and support can fly a given distance in a specific time and penetrate enemy defenses with a specific number and tonnage of bombs. The planners can also evaluate the same kind of information about the cost and capability of one or more missiles to do the same job. They can then compare the relative effectiveness with the related cost of bombers vs. missiles and thus furnish our top military command with bases and data for rational decisions about force structure.

In many cases, the solution of these and other difficult problems, such as the evaluation of alternative goals and the identification of the best means of achieving the goal selected, will take time. But the problems must be addressed, and the big contribution of PPB is to bring these problems to the surface and set in motion the required chain of problem-solving events.

A note of caution on the PPB system is needed, however. There is nothing magic or self-executing about this or any other management system. PPB must be applied carefully and properly, recognizing that experience and judgment must play a vital, if not decisive, role in decisionmaking. It is a tool—nothing more—to supply the facts and the discipline for analyses essential to more effective program decisions.

However, the potential, significant improvements in the allocation of resources associated with PPB make it essential that we take whatever steps are necessary to have the trained employees available and to develop the improved analytical techniques.

Certain members of the Congress have indicated an interest in making fuller utilization of PPB in the review of annual appropriations.

There is no way that you can develop a system such as PPB, in my opinion, that will resolve the basic priorities among different broad purposes of Government. In terms of specific programs and specific objectives, however, PPB can play an important role. It can help you to select proper alternatives and to develop an analysis which will project for you the long-term consequences of those alternatives in terms of achieving the greatest output. Whether we continue to call it PPB or program budgeting, or what have you, this basic type of analysis is essential to appraising alternative ways of attaining national goals.

Conclusion

I have attempted to outline, in general terms, some of the potentials for improvement in the management of Government activities today. Much of what I have said is not new. But I have dealt with areas which, I believe, are fundamental and need underscoring and emphasis. That, I believe, is the central objective of this conference.

These and other improvements are urgently needed. They are basically your responsibility. We in GAO will do all we can to help by examining into problem areas and assisting in finding solutions. Experience has demonstrated that we can be helpful in the difficult task of managing Government operations. But the major buden of identifying and correcting management problem is yours. □

Those who attended the forum "The Management Demands of Tomorrow," [1] an opening feature of the first "Federal Management Improvement Conference" which was held in Washington last September, were given an insight into some of the management problems our Government will face during the years ahead if present trends continue. It was apparent that Federal managers can expect realinements to be made in national program priorities; increasing emphasis upon decentralization of authority for administration of domestic programs; further measures to strengthen long range planning at the policy making levels; and a strong desire on the part of the current administration to deliver that which has been promised and to stay in tune with the social and economic demands and changes occurring in the United States today.

The Challenges Ahead

No matter how orderly, a realinement of national priorities and increasing expenditures to improve the social and environmental state of the Nation will in all probability serve to divert resources from defense into other areas, with no lessening of the requirement for a strong defense posture. But the name of the game is not really going to change very much. The dominant problem which the defense manager has always faced is one of determining how best to apply limited resources to what at times appear to be unlimited and often unpredictable requirements. Looking at defense management in this context you could wind up holding quite a large elephant by the tail were you to attempt to define in any detail and depth the management challenges of today, which are of course those of to-

DEFENSE MANAGEMENT CHALLENGES OF TOMORROW

[1] Forum members were: Mr. John Young, Director, Economics, Science and Technology Division, Office of Management and Budget—Chairman; Dr. Paul E. Mott, Professor of Sociology, Univ. of Pennsylvania; Dr. Edwin L. Harper, Special Assistant to the President; Mr. Edward V. Curran, Director, Office of Labor Relations, Federal Aviation Administration.

By Maj. Gen. THOMAS H. SCOTT, Jr.,
U.S. Army
Deputy Director, Defense Supply Agency

morrow. It seems to me that any listing of challenges which managers in defense are most assuredly going to have to face should include at least three, namely:

    a. The challenge of limited resources;

    b. The challenge of people management; and

    c. The challenge of the computer.

One way to look at the challenge of limited resources is to say that we simply are going to have to figure out ways and means to do more with less; that somehow through advances in science, technology, organization, and methods, we are going to have to develop a bigger bang for every dollar expended.

If you are going to save big money you have to look first at the areas where the big money is being spent. The largest budget at the moment is for defense. If you are going to change national program priorities substantially then the new must in major degree be funded at the expense of the old. This leads you back to the defense budget. When measured as a percentage of the gross national product (GNP) or of the total Federal budget, expenditures for defense have shown a marked decline over the past several years during which a major inflation has occurred in the cost of salaries, construction, goods, and services. So what then can be done? It would be helpful if we had a Federal budget based on a national priorities program—a program which, as a minimum has been jointly developed by and is mutually acceptable to the executive and legislative branches of the Government. Since it is highly improbable that we will have such a program during the next few years at least, the magnitude of the defense budget will continue to be uncertain from year to year and will continue to be subjected to the vagaries of international tensions and to erosion caused by support of socioeconomic and environmental improvement programs. All of this adds up to the fact that defense managers will be increasingly pressed to find ways to cut costs.

Too Many Hierarchies

One area that offers promise would be a reduction in layering of logistical staffs. When we see staff echeloned on top of staff without intervening operational elements, someone's alert antenna should go up! For example, the logistical chain of command as it relates to the Army runs through a series of staffs, from the Assistant Secretary of Defense (I. & L.) through the Assistant Secretary of the Army (I. & L.) then through the Deputy Chief of Staff (Logistics), and finally through the Headquarters of the Army Materiel Command, before you reach the guts of the operation; namely, the commodity commands and supporting depots who are determining the requirements, procuring the goods, and storing and moving the hardware. A somewhat comparable hierarchy of logistical staffs exists in the Air Force and the Navy.

In contrast, let us look for a moment at one logistical support organization, the Defense Supply Agency (DSA). DSA's performance has compared favorably with that of the military departments. The Director reports directly to the Secretary of Defense. His field commanders in turn report directly to him. The organization and system work and get results. I don't propose that military service logistical commanders report to the Secretary of Defense, but it seems clear that some streamlining of the present logistical staffing structure is in order.

Maximizing Logistical Power

Apart from savings which are possible in the area of staff layering, substantial reductions in costs could be made through increasing our logistical power. Logistical power to me is in many ways like kinetic energy represented by the product of one-half mass and the square of velocity or speed ($\frac{1}{2}MV^2$). Logisticians constantly face the challenge of controlling "mass" in this equation—"mass" representing our investment in stocks on hand, on order, and in transit. Substantial cost savings can be made and are being made through reduction of on-the-shelf stocks and supply pipelines brought about by greater centralization of control of inventories and use of high-speed transportation. This last point, transportation, is the source of real power, however. Because, for the most part logistical power comes from the speed with which hardware and supplies can be delivered to the end of the line. The greater the "V" capability, the smaller the "M" requirement.

During the early years of the Vietnam war, the average order and ship time for the run of the mill things moving by ship to Vietnam was around 105 days; the average for the Army's Redball Airlift Express, one of the most highly controlled and effective systems ever developed to keep major weapons systems and other equipments off deadline, was 15 days. Both of these time frames are much too long for any war of the future against a sophisticated enemy. Regrettably, not enough progress has been made in improving the speed of transport ships at sea since the days of World War II. We badly need cargo carrying ships, be they submarines or surface ships, which have the capability to get there in a hurry. In brief, as we can materially increase our logistical power by capitalizing on speed, such as the C–5A aircraft will provide, we can significantly reduce costs without degrading mission performance.

Integrated Resources Management

The sophistication of weapons systems will continue to have to undergo careful cost versus benefit scrutiny. But underlying the spectrum of the problem of how best to cope with limited resources is the ever-present need for an effective and responsive system for determining requirements and then matching those manpower and financial resources which are available to get the most mileage for the dollar. Much effort is being applied throughout the Defense Establishment to develop such a system. The DSA has been one of the leaders in this regard.

DSA has developed and is continuously refining an Integrated Resources Management System, which has proven to be highly effective. The system integrates six subsystems: a Cost Accounting System; a Management Information System; a Performance Standards Program; a Performance Evaluation Reporting System; a Management Review System; and a Program/Budget System. All of these systems function under a single management accounting structure which is common to the Agency's organization and functional alinements from the lowest work center level to the top of the Agency.

A key feature of this system is a centralized bank of manpower, cost and output measurement data used in performance evaluation and management decision-making, especially resource application decisions. Centralization, automation, and uniformity of this data have been found particularly beneficial since each element of management data is readily available for multiple purposes. Inaccuracies inherent in varying interpretations of data acquired by operating and administrative officials from different sources in different time frames are avoided. We have been able to maximize the benefits we can obtain from each data element and save time and money in the process.

The Integrated Resources Management System provides DSA managers at all levels with an excellent basis for more precise and uniform determination of requirements in terms of manpower, personnel costs, and total costs. It is a coordinated approach to management of resources which permits the Agency's Director and his field commanders to know, on a current basis, how resources requirements are developed; how resources are programed through the budget process; and how resources are applied in the operating areas. The system's performance standards enable top management to analyze the utilization of manpower in terms of performance effectiveness; and integral cost measurement provides the key to efficiency. Detailed evaluation can be made by individual mission elements as well as by individual field installations and the Agency as a whole.

> **"Some how, and in some way, we are going to have to do a much better job of putting the personal back into personnel management."**

The Ultimate Resource

Turning now to the challenge of people management. I think that most of us would agree that man's greatest investment will always be made in man himself; that management's greatest challenge lies in the management of people; and that we have done a pathetically poor job in this area since time began. However, considering the complexities of the human mind and the idiosyncrasies of individuals, perhaps it is not really surprising that we have done so poorly.

In a number of ways today's work force and today's youth are different from those of yesterday. They are better informed and they are better educated. Unionism among Federal employees is on the rise. They insist on the right to ask questions and to know why. Be they soldier or civilian, they will not accept and they will flatly reject, in the words of Tennyson, that "theirs not to reason why, theirs but to do and die." Managers must see and managers must learn to recognize and understand the growing individualism and activism on the rise in today's society. While there is much to deplore in the rising willingness to employ violence by a very small minority of the Nation's youth, we must continue to ask ourselves, "what are these people seeking?" A change in the tactics they employ should not necessarily be assumed to be a change in the goals to which they aspire. Somehow, and in some way, we are going to have to do a much better job of putting the personal back into personnel management.

We are living in a time when the impact of the depression of the thirties has waned as a psychological influence on employees' motives and values. While the older members of the work force who have vivid memories of the depression still place a high price tag on job security, many of today's young employees do not. Consequently, more and more of the young people entering the Government, including the Defense Establishment, tend to view a job differently perhaps than did many of our senior defense managers. They see a job as a means of self-expression and as an opportunity to make a contribution to society. They expect to be consulted and to have a voice in the setting of objectives, and resent it when they do not. Didactic management tactics are no longer suffered silently. Militancy is on the rise among groups previously considered "safe" and "dependable" by management. Defense managers, therefore, can expect to confront increasing use of what

they might consider illegal tactics: work slowdowns, pamphletizing, picketing, or even strikes. While managers may be appalled by such activist manifestations among their workers, they should not be so blind as to fail to see that such tactics may have been founded in perfectly legal and understandable desires.

If we are going to do a better job of putting the personal back into the management of personnel, it seems to me that we are going to have to talk less and listen more. Top management is going to have to get its feet muddy in the back alleys of the administrative process where the workers work and the problems brew. We are going to have to place increasingly greater emphasis on individual capabilities and capacities of people and less on organizational charts and rigid job sheets or position descriptions. Organization charts should not be permitted to deny us the opportunity to pool our brain power and exploit the specialized knowledge, talents, and experiences of our personnel.

As organizations become larger and more complex, it is increasingly important for management to delegate responsibilities and commensurate authorities to subordinate organizations and individuals to act and make decisions. Concurrently, as this is done, top management must more and more centralize the means by which performance is measured and results appraised. Most of you would agree that this is right. However, as the ability to acquire and communicate management information has improved, there has been a tendency for decisions to be made at increasingly higher levels. Control, policymaking, and operational decisionmaking have tended to merge at the top of the pyramid with the workers and middle management having a diminishing voice in their formulation. Fortunately, the Secretary of Defense has done and is doing much to reverse this trend.

Retention of Specialists

The problems of the past and present associated with recruiting and retaining quality civilian and military personnel in the work force are not likely to disappear for a long time to come; however, I would hope that somehow we could do a better job and display a little more imagination in coping with some of them. A recent survey of the Department of Defense logistics work force pointed out that the average age of key logisticians is 48. Over 40 percent of the civilian work force will be be eligible under current regulations to retire in 5

years; and more than 70 percent will be eligible to retire in 10 years. Our entire defense work force is getting older, and many high quality young people either are not seeking employment in the Defense Department or are the first to be affected by reductions-in-force necessitated by reduced spending, since they lack seniority.

A vast majority of our officer personnel face mandatory retirement at the peak of their productive careers, and relatively early in life, at a time when many still have children to educate in college. Today's youth are aware of this and many no longer see in military service the attractions which at one time existed in the past. Civilian endeavor in the eyes of many has increasingly become more secure, more remunerative, less disruptive to family life, and unquestionably far less hazardous.

Apart from the enormous and unnecessary costs which they are generating, civilian personnel retention and retirement policies and the military retirement policies of the Department of Defense certainly are in need of detailed scrutiny and review.

Finally, there is the problem of specialization in our officer corps and what to do about it. All of our talk to the contrary, the fact is that the true specialist's chances for promotion to senior rank in the military services are remote compared with those of his contemporaries in the combat arms. The majority of our specialists, and the number is rapidly diminishing, are retired in the grade of lieutenant colonel or colonel at a point in time when their experience level is at a peak and the need for them may be the greatest. The great emphasis placed during recent years on functionalization, as opposed to technical and commodity specialization, has rapidly diminished the ranks of specialists in many areas which we use to take for granted, such as food, petroleum, depot operations, and procurement. We say that we are going to need more and more specialists as technology advances and our operations become increasingly more complex. Yet, in a truly practical way we are doing little to recruit and develop these personnel and to hold on to the outstanding ones we have. Increased longevity of service prior to mandatory retirement and specialists' pay for highly skilled officers commensurate with what industry is paying for comparable skills and responsibilities are two things which should be considered in approaching the specialist problem.

Controlling Computers

I come now to the challenge of the computer. The wonders that they can perform and their awesome potential for the future are well known to all. They do, however, pose two very significant problems to top management which we tend to sweep under the rug and which I believe are worthy of some discussion.

14

One of the things that sets the top manager apart from the rest of the crowd is his ability to ask the right questions at the right times. Now more and more today the computer is asking these questions for him. He then accepts as gospel the data and figures which it spits out and reacts to them. The computer can only ask questions in some form of a logical sequence the answers to each of which must be yes or no. How well is the computer asking its questions and how logical is the sequence in which it asks them? Well, if you want to get into this one in depth you are in the field of systems design and must have some knowledge and understanding of filter logic charts and how they work. You then may agree or disagree with the logic. The problem is that even if top management had the technical knowledge, and top management is acquiring such knowledge in increasing degree, it simply does not have the time to analyze its major computer systems in depth and detail. More and more this chore is delegated to automatic data processing chiefs and technicians. So more and more management is becoming dependent upon the computer specialist. Much like the family doctor, we may like his personality and trust that he is professionally competent; God help us if he is not. I really don't know the answer to this problem. Many of our computer programs are enormous. One system in the late stages of development in the Defense Supply Agency, known as the Standard Automated Material Management System (SAMMS), encompasses some 8 million different machine instructions. It also involves approximately 14,000 written pages of clear text procedural instructions. Little wonder then that from time to time a lot of indigestion is in store for you along the route as you attempt to eat an elephant of this magnitude.

There is one thing we can do, however, and that is to insure, in establishing uniform data systems centers, which are in vogue today, that policy formulation as it relates to systems design is written and controlled by those functional personnel having responsibility for mission performance. DSA is considering establishing a uniform data processing systems center. If I had my way, it would be built as close to my office as possible. I want to keep my eye on what's going on, and I don't want to be taken by surprise in finding out that the tail is wagging the dog and that the computer's programing has in fact dictated and changed the policy, rather than vice versa. Of one thing we may be assured—the computer will rapidly become our master and not our servant if we let it.

The second area that bothers me in the design and administration of major computerized systems as they relate to supply management is the accuracy and reliability of the data which they produce. Trite as the expression may be, "when you put garbage in—you get garbage out." Many of these systems

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"Of one thing we may be assured—the computer will rapidly become our master and not our servant if we let it."

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are like a long chain of many links. If a link does not break and if everyone knows his job and does the right thing precisely in accordance with the book and at precisely the right time, the results are perfect. But this Utopian world will never exist. Human beings make mistakes, programers make errors, requisitions still get lost, and within the supply systems of the Department of Defense today you will continue to find some dramatic discrepancies between what's in the computer and what in fact is on the ground. So this then leads to the caution that we must build sufficient redundancy into the design of computerized systems to insure ourselves that at key points the "red light" will turn on and flash on a real-time basis when errors occur.

Understanding the Obvious

For much too long redundancy has been an unpopular word. To those skeptics who feel that we do not need it, I would like to point out that one of the most redundant and yet highly effective systems in the business world is the commercial accounting system which has really not been changed in major degree for many years. It is a double entry system all the way, and it is its redundancy which flashes the errors, and provides the audit trail to track them down. In a final sense the message here, I guess, is that if you can't flash your mistakes on a real-time basis, you are probably in for serious trouble and it is only a question of time until the fact comes to light, probably with some embarrassment.

The foregoing observations, brief and cursory as they are, can serve only as a frame of reference. They represent the opinions of only one official among many concerned with logistics management within the Department of Defense, and some are controversial. They offer no pat solutions but hopefully contain some food for thought.

In conclusion, I might state that the greatest challenge of all which the defense manager of tomorrow will face is likely to be the "challenge of the obvious." It has been my experience that because the obvious things in the world around us are readily taken for granted, they are seldom fully understood and are easily overlooked. Normally, when you miss the obvious in business management or in war, you miss it big. Then it is that hindsight serves to dramatically point out to you those obvious things which your foresight should have seen at the time. □

THE IMPACT OF TECHNOLOGY ON MANAGEMENT

By JOE C. JONES
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of the Air Force
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Landing a man on the moon and returning him safely to earth within the decade of the 1960's was not only a triumph for this Nation's technological prowess but also a vivid testimony of its managerial skill. Possibly greater than any previous single exploit, the Apollo program—from the initial planning, development problem solving, and event scheduling among thousands of contractors and vendors, to the intricate operational communication linkages to permit real-time earthbound decisionmaking up to the actual point of touchdown on the moon—challenged this Nation's ability to amass the manpower, materiel, and technological skills against a predetermined time table. On the basis of this demonstrated success, many are now asking the question: "Can the system sciences, used so successfully in organizing and managing national resources in placing man on the moon in the decade of the 1960's, achieve equal success in attacking the national domestic needs in the decade of the 1970's?"

The impact of technology and the system sciences on the management of complex programs and their potential in relation to the major social and other domestic problems in the 1970's provided the basic theme of the forum held on the second day of the recent Federal Management Improvement Conference sponsored by the Office of Management and Budget. In leading the discussions for such an appraisal, who could be better qualified than some of the men who helped design the system and made it work so successfully for the Apollo program. Dr. George M. Low, Acting Administrator of the National Aeronautics and Space Administration (NASA), and former Manager of the Apollo spacecraft program, acted as the Panel Chairman. Lt. Gen. Sam C. Phillips, former Director of the Apollo program for NASA and now Commander of the Space and Missiles Systems Organization of the

Forum on "The Impact of Technology on Management." Seated, left to right: Mr. Lewellyn J. Evans, President, Grumman Corp.; Lt. Gen. Sam C. Phillips, Commander, Space and Missile Systems Organizations, Air Force Systems Command; Dr. George M. Low, Deputy Administrator, National Aeronautics and Space Administration (Forum Chairman); Dr. George Kozmetsky, Dean, College of Business Administration, University of Texas. Standing at podium is Mr. Dwight Ink, Conference Chairman.

Air Force; Mr. Lewellyn J. Evans, president of Grumman Corp., the builder of the Apollo lunar module; and Dr. George Kozmetsky, formerly associated with Litton and Teledyne Corps. and presently dean of the College of Business Administration of the University of Texas, were the panelists.

The Data Flood

Programs, such as Apollo and many major Defense system programs are extremely complex undertakings and share a number of things in common. More often than not, they are aimed at the threshold of technology and dependent upon scientific and engineering innovation for success. They generally involve thousands of contractors producing hundreds of thousands of detailed parts, all of which must function properly in an intricate and sophisticated system design to achieve the reliability and safety required for mission success. The development, manufacturing, and testing activities are carried out by Governmental and industrial organizations in far-flung locations throughout the United States within a highly coordinated and interdependent schedule. These programs typically encompass such scope and magnitude that no one man can completely understand all of the intricate details. As Dr. George Low pointed out, this is a far cry from the essentially two-man bicycle shop effort of the Wright brothers that led to the development and production of the first successful aircraft, in which the brothers not only developed and built the airframe but also designed and produced the engine. Historians have also called our attention to the fact that the Wright brothers' first military aircraft was produced under a highly simplified incentive contract in which they beat their schedule and won incentives for bettering

the performance goals. Just as modern advancement in the state of technology appears to have afforded us almost limitless opportunities for the future, it has also brought with it an everincreasing degree of complexity with which we must cope. The basic management problem becomes one of how we, in this complex world, properly assimilate information so that a few individuals, asking the right questions, can manage such far-flung enterprises.

Technology has provided us with the communication techniques with which to meet such management challenges of the future—witness NASA Houston's ability to confidently and correctly tell Neil Armstrong to ignore his on-board computer alarm signals during the lunar landing and the real-time viewing on home television throughout the world of his first step onto the moon. It has also provided the ability to simulate and analyze hitherto unsolvable problems and has made available an enormous capacity for data storage and subsequent retrieval through the massive computer complexes that have been developed. But, as Dr. Kosmetsky cautioned, one of the things we need to learn is how to avoid overloading these facilities, and indeed the manager himself, by knowing what questions to ask and then communicating only that which is essential. While computers can prove to be a tremendous asset to management, they can also, as Lew Evans pointed out, be a booby trap by providing too much paperwork and creating one of senior management's greatest problems—that of "paper pollution." The duplicating machine is likewise a rogue in this regard. With simple ease, numerous copies of reports and data can be distributed, often to those with only mild interest or concern who feel compelled to read them and ask questions to keep up with the main stream of things and be aware of what is being "fed

to the boss." In this, management has a responsibility to periodically "police the system" to avoid being dominated by the system itself.

While the system sciences have been developed to a high degree, and communication and data storage and retrieval systems exist, we do not yet have infallible models for studying large complex problems, particularly where the goals and objectives cannot be defined precisely for measurement and trade-off in relation to quantifiable parameters. This, in large measure, creates some of the doubts and frustrations when attempting to determine to what extent the techniques, that have worked so well in highly technological approaches to hardware and research, will work in the socially oriented programs aimed at meeting our domestic needs.

Defining Objectives

The extreme importance of clarifying goals and objectives at the outset was brought out by General Phillips, in his discussion, as one of the lessons from Apollo—i.e., "the necessity of dividing what is to be done from doing it or how to get it done." The Apollo program was uniquely fortunate in this regard. Once the President and the Congress set the objectives and its worth, established the time table and assigned the job to NASA, the agency could dedicate itself to organizing the resources to get the job done.

Characteristically, space and Defense programs generally have objectives which can readily be quantified and, in relation to varying technological risks, alternative solutions can be postulated, analyzed, and advocated. Decisionmakers can then select a preferred solution and, once a course of action is agreed upon in relation to projected resource requirements, the results from the followon program can be measured against the original promises. The ability to clearly identify the goals and objectives against which he will be measured is critically important to the success of any program manager.

Dr. Kosmetsky, in responding to questions from the floor during the discussion period, put his finger on this as one of the critical issues—that of establishing and gaining full understanding and acceptance of a clear definition of objectives. In response to a request for a clarifying definition in the area of crime prevention, he cited, for example, the establishment of a national objective of "reducing the crime industry by 50 percent over the next decade and providing useful work for the persons so displaced." In other words, establishing the objective of reducing crime by 50 percent, while commendable within itself, is incomplete and becomes somewhat impractical without recognition of the other part of the objective—that of providing some means of gainful employment for those otherwise displaced. Furthermore, it is not clear that the same agencies would necessarily be involved with both phases of the objective as stated. There are many Federal, state, and municipal jurisdictions involved, each of which may or may not have a similar alinement of responsible agencies and activities.

Pollution control, elimination of poverty and many of the other social and domestic goals have similar characteristics. Such goals, noble though they may be, largely lack the distinctive features of Apollo and/or Defense-oriented programs where a definable task, assigned to a single agency, approved and sanctioned by the President and the Congress, can be organized, broken into subelements, planned, and executed within the definition of agreed conditions. It is in these latter cases that the system sciences have so effectively proven themselves. There is much to be learned in adapting these or similar techniques to the former.

Redirecting the Talent

Notwithstanding the forum's accent on technology, all of the panel members voiced a common view that competent, dedicated people were the single most important element of the management process. Technology can create the systems to pull together the basic elements needed to make decisions, provide the analytical methodology, and establish appropriate feedback loops for subsequent execution and control; but, if the people are not properly trained to use the data or do not get into the detail necessary to understand the interrelationship, full implication and possible consequences of decision alternatives being considered, then they cannot make the positive and incisive decisions so essential in large complex programs.

In these days of declining space and defense budgets, the displaced space/defense/industrially trained managers and enterprises provide an experienced national asset which should be brought to bear on the major domestic concerns facing our Nation. The problem is a most difficult one and no easy solution is apparent. In fact, a number of aerospace contractors, in responding to a recent request from a Senate subcommittee considering a National Economic Conversion Commission, were very cautious and conservative in their estimates of future prospects, citing that results to date have been disappointing when attempting to apply system approaches to social problems. Several cautioned against overoptimism until more explicit goals could be developed against which technological solutions could be cast. The forum likewise brought forth no apparent solutions or consensus—other than the general realization that the experience transfer is of the utmost importance and that continual study and discussions among the various executive agencies must continue if solutions are to be found. Wherever we have been able to apply technology in the past, the rewards are so great that the challenge cannot be neglected. □

IMPROVING LABOR-MANAGEMENT RELATIONS IN GOVERNMENT

Panel on "Improving Labor-Management Relations in Government." Left to right: C. Thomas Spivey, Vice President, Labor Relations, United States Steel Corp.; Arvid Anderson, Director, Office of Collective Bargaining, City of New York; Anthony Ingrassia, Director, Office of Labor-Management Relations, Civil Service Commission (Panel Chairman); Roger T. Kelley, Assistant Secretary of Defense (Manpower and Reserve Affairs); Bertrand M. Harding, Associate Administrator for Manpower, Federal Aviation Agency.

Is Executive Order 11491 Being Underfed?

By A. DI PASQUALE

Director, Labor and Employee Relations Division
Office of Civilian Manpower Management
Department of the Navy

IT HAS been said that one cannot forecast until there has been impact. Yet, many of the experts (and those not so expert) are doing just that with respect to the future of Executive Order 11491. With less than a year's experience some soothsayers have descended upon the order with varied adverse comments about its quality, usage, and perhaps, its destiny.

Tendency To Prejudge

Most criticisms on the dark side have come from labor organizations. They have been heard in the halls of seminars and conferences of all types and their dim views concerning the order are also contained in house organs, periodicals, and other forms of publication.

The nature of the criticism does not stem so much as to desired modifications based on what experience we have had so far, but rather out of disappointments as to what was not contained in the order, when it first became effective. The feeling exists amongst many of us in management, that theirs was a hope for a more utopian realization of what a Federal program should contain and that the order fell far short of that—and they haven't gotten over it.

Without a fair trial, the order thus, has been negatively weighted. Whether it will work or not, seems immaterial to those proponents who prematurely judge it and continue to clamor for what should have been. For example, some Government unions still insist on legislation such as a little National Labor Relations Board (NLRB). Some are unhappy about the composition of the Federal Labor Relations Council (FLRC) membership, alleging a management bias. Some fear that the Executive Director of the FLRC is the real power behind the throne. And absent the right to strike, an alternative such as compulsory binding arbitration was not included. If all this robs the order of needed sustenance for lack of a will to make it work, most assuredly it will become anemic through undernourishment.

The best we can do in this article is to plead for time to test what is, and utilize that time for needed trials and experiences. We can only point to certain early trends, make conceptual observations and adhere to the ideology that a Federal labor-management program must grow in its own public soil; that it cannot come about by way of a manufactured miracle.

Admittedly, there has been little experience with the Impasses Panel and the Federal Labor Relations Council. Familiarization with the provisions of the new 11491 by all levels of Federal management as well as echelons of union organizations has eaten up time that has yet to be devoted to negotiations and renegotiations in terms of the new potentials open to the parties at the bargaining table. Binding arbitration as a terminal step in negotiated grievance procedures is still new and

undoubtedly the parties have yet to explore its effectiveness. Most active, thus far, have been those cases coming under the jurisdiction of the Assistant Secretary of Labor for Labor Management Relations.

Public Sector vs. Private

An early trend in practice points to the rules promulgated by the Assistant Secretary. These rules bear a Xerox resemblance to those of the NLRB which also processes unit, representation, and cases dealing with unfair labor practices. This, of course, is an adaptation of what exists in the private sector. Whether this is good or bad, it is hard to form a judgment at this time. Certainly, study and analysis are required before we commit the public sector to possible grievous error by adopting those decisions or rulings which derive from application to an entirely different law.

This gives rise to another corollary observation. If we recognize and accept basic differences between the two sectors, it does not follow ipso facto, that remedies for each can be identical. The lines of separation are too pronounced. For instance, the one sector exists for service to the public, the other for profit; strikes are permissible against the private employer, not so in the Federal service; private management is more flexible in its operation in that he may move, shut down, or be influenced in deliberations by the forces of competition—options which are rarely available to public managers.

Then there is that other area of basic difference, namely the scope of bargaining which is virtually unlimited in private dealings as compared to Government where the separation of executive and legislative powers places constraints on the discretionary ambit a Federal manager may exercise. If these are acceptable differences, one may reasonably argue that conduct, relationships, and decisions which flow out of such diversities may give rise to causes and effects very unique to each of the sectors * * * and not necessarily transferable. An analogy may be drawn as to automobiles manufactured by different concerns. Each requires different parts, tools, and different servicing which result in different performances.

The public sector has a vested interest as to what happens in private business; likewise industry has a vested interest as to what takes place in the Federal establishment. What seems most prudent at the moment is to recognize that if there is to be a developmental program of labor relations in Government, that development may look to, but not lean completely on, the private experience * * * and in time build its own common law of practices as distinguished from that now existing in private industry as accumulated in four decades of practice, and, for the exclusive benefit of the private sector.

"The postal strike brought on a major change—a major policy decision, in that bargaining between unions and the Postal Department took place, which bargaining was endorsed by Congress."

The "Right" To Strike

The emphasis on development has for its support another phenomenon of recent date. Soon after the Executive Order 11491 became effective, a serious strike and sickout hit the Federal service; namely, the postal workers and the air traffic controllers. At the Federal Management Improvement Conference, held recently at Washington, Mr. Arvid Anderson, Director, Office of Collective Bargaining, city of New York, made these observations at one of the panel discussions. The postal strike brought on a major change—a major policy decision, in that bargaining between unions and the postal department took place, which bargaining was endorsed by Congress. Executive Order 11491, plus the enactment of the Postal Reform Act, he observed, opens up a whole new concept in collective bargaining and most important, it came about as a result of bargaining. Undoubtedly, he says, this may well establish some sort of pattern. The impact may well color the development of 11491.

If Mr. Anderson's observations have validity, or his forecast is a possibility, again such attest to the forma-

tive stage in which the Federal labor management program is cast and the need to study what is taking place and how the events must shape themselves.

This takes us now to the question of a the right to strike, for this has been a hot subject in the current look-see evaluation. It is an important subject, indeed, for it is generally agreed that collective bargaining will not work in the private sector unless the right to strike is preserved. Some labor organizations in Government have seized upon this deprivation in the public domain and insist that the void be filled by suitable alternatives or added concessions. The unions ask, what is the quid pro quo?

There are no pat answers. Responsible union leaders and Federal managers are looking for the alternatives and this search once more points to the evolutionary change we must undergo and the need to fashion our own remedies unique to the Government's stance or posture. But if we feed the order and not starve it to death, we may discover some alternatives. It is known, for example, that in the private sector there are literally hundreds of employers who never have experienced a strike despite the fact their employees enjoy the in-

21

herent and legal right to strike. Primarily, this has been due to the mature relationships management and labor have promoted in dealing with one another, plus the exercise of strong management initiative sensitive to the wants and concerns of their employees.

One Answer: More Effective Mediation

Another alternative can emerge under the order itself which relates to the resolution of impasse disputes, and that is to learn and perfect the use of meditation— a technique little used under 10988. Effective mediation in the private sector has removed many a fuse from what otherwise could have grown into explosive situations. Where impasses are crucial and of the hard core nature new opportunities are open to the Impasses Panel. Fact finding and recommendations, Mr. Anderson points out, constitute a form of de facto arbitration and there is opportunity to experiment in this area.

In the arsenal of alternatives there lies a powerful ingredient, oft mentioned but less emphasized in practice—and that is the area of preventive programs. Properly administered and implemented these programs minimize or tend to avoid emotional situations that border on mass confrontations. Such programs may encompass training of our respective resources so as to build the required expertise in the field of labor relations; or, bring about understanding of each of the parties legitimate role in areas of bilateral dealings; or, how to handle grievances; or, building of mutual trust and respect; the need for communications and eyeball to eyeball dialog to discuss issues or solve problems and a host of other affirmative practices known to many who have been in the profession for years.

These comments and observations tend to score the many avenues or opportunities yet available and which have yet to meet the test of adequacy, if given the chance. For an order to meet its intended purposes, supplementary tissues to the basic structure need to be grown and applied. To dramatize our point, let's assume that a little NLRB were thrust upon us tomorrow. Neither the Federal management nor members of labor would have the resources, expertise, and experience now enjoyed by the respective counterparts in private industry gained over decades of practice. We'd be caught in a morass of administrative chaos and labor-management entanglements.

Some Guiding Principles

Lest any of these comments be taken out of context, a brief summary can be helpful. Labor relations in the Federal service is in a formative stage. It needs feeding and support by all parties involved if the program is to grow and evolve. Executive Order 11491 is susceptible to evolutionary change—not revolutionary turns. We must seek those changes that will best serve the Government, the employees and their designated repre-

sentatives in the climate in which all live. We must seek to avoid the rigidities of private law and hue to a flexible law that can be made applicable to our system of lawmaking and executive implementation involving so many departments of the Federal establishment. We need time and perhaps suffer some pain to acquire the necessary knowledges and skills. As to this we are reminded of an admonition that even in the private sector, more negotiations fail and strikes occur due to the ineptness of either or both of the parties, rather than to the gravity or complexity of issues over which they hassle.

We may look to the private sector for lessons to be learned and guidelines that may be useful in helping us to shape a Federal program, but such references should not operate as binding examples in instances where the square peg cannot fit the round hole.

The prohibition against strikes must remain on the statute books, but perhaps an examination of the penalties for violations should be reevaluated—for they do appear excessive and unenforceable, as now written.

In 9 years we have learned much and we are making progress. Management and union leaders are sitting down together—honestly and in good faith to discuss each other's interests. There is recognition that each fulfills not only his separate responsibilities but joint responsibility to achieve common goals. Disputes have arisen and techniques and rational approaches in the minds of the solution-oriented have brought about a growing mature relationship. The new order provides additional tools to meet today's problems—not hitherto available under 10988, and we have just started to learn how to use them. We have come a long way since 1962 and we can only move as fast as our capabilities and collective knowledge will allow us. But before there is any attempt to scrap the existing program let us first make every effort to feed and improve what we have. In the final analysis, it may prove best; but we will never know if we don't work at it. □

APPLYING THE SYSTEMS APPROACH TO MANAGEMENT

WE AMERICANS have always been fascinated by slogans, gimmicks, and quick solutions to problems. The current vogue in both business and Government is to apply the "systems approach" to management problems. Success in systems management is highly visible in a host of management triumphs: Polaris, Apollo, Minuteman, and more. Whether we use the term "systems approach," "systems analysis," or "scientific management," there is no substitute for personal involvement and rational application of experience and knowledge.

Human Involvement

The fundamentals of any effective system are quite simple, however; lay out principal chores over time and track progress against them, identifying reasons for "actual" varying from "plan" and corrective actions required. "Management by exception" is usually not managing at all but fighting fires, for unless any headquarters lays out its programs and systematically maintains surveillance over them, it finds itself completely absorbed in reacting to problems surfacing from below

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and shoved down from above. Too often, however, the "systems approach" has proved ineffective in solving management problems, and in some cases, has caused new problems to surface.

Management may be truly said to pervade all of civilization. Civilized activity is generally purposeful. Accordingly, the management function is indispensable and human actions must be conscientiously guided toward its goal. Beginning with the industrial revolution, we have seen many new philosophies and so-called systems appear on the horizon. Fredrick W. Taylor, oftentimes called the Father of Scientific Management, was followed in almost geometric progression by a series of writers on management theories, management information systems and systems analysis approaches to management. A clear and succinct defining statement on management process is provided by the Air Force. "* * * Management is defined as the process of organizing and employing resources to accomplish pre-

Panel on "Applying the Systems Approach to Management." Left to right: John L. McGruder, Director of Management Systems, Department of Transportation; Alan Dean, Assistant Secretary for Administration, Department of Transportation (Panel Chairman); Dr. Joseph F. Shea, Vice President and General Manager, Raytheon Co.; Guy W. Chamberlin, Vice President of Finance, Matlock, Inc.

determined objectives * * * the proof of success of management is operational effectiveness." Without careful attention to the development and operation of management systems, operational effectiveness is degraded.

Know the Objectives

In considering any type of system, whether contemplated or in existence, there are many points that should be kept in mind.

First, there is the importance of how objectives are expressed and understood. At the highest level, there may be a general understanding and an implied result which is understood by the principles involved. However, as these objectives are passed down through the staff to the individual responsible for developing the system, the objectives are often changed or interpreted in a manner far different from their original intent.

The Apollo program emphasized the proper approach of the "boss" to systems management. President Kennedy set the stage for the Apollo program in 1961 when he said the United States would endeavor to safely land a man on the moon and return him before the close of the decade. This simple but high level statement left little doubt as to what was to be accomplished. The statement said we were to land a man—not a woman,

on the moon,—the only one we have, within the decade—by 1970. Such a national project so defined and so specific left little to be interpreted. With the highest level of interest in the program it was with a clear and concise statement of the problem that NASA went forth to accomplish it. This they did successfully. However, the lack of any specific goals today may well be the undoing of this agency that performed so outstandingly on this well-defined program.

Many Government programs are not so fortunate; for example, take the model cities program. Here there were no clear objectives. Most of what was written concerns such things as—improving the quality of human life—developing more hardware-type products—looking for innovations—using modular design. Here the complex Government interrelationships and the lack of control by any single agency made the task of developing and using a systems approach almost impossible. Here were many problems that differed from the DOD or NASA type of specific mission or specific development projects.

All too often, managers will call in an assistant and say, "There's a need to establish a system to handle a problem which has come up." Now if the assistant goes out and establishes a system, it may or may not do what the boss wants. The boss needs to have an understanding of the fundamentals of the system and be sure that it is doing what he expects it to do. The

tendency many times has been to call in the systems engineer and have a system designed which turns out to be a tremendous undertaking but fails to give the manager a solution to his problem, simply because the manager didn't adequately define his objectives.

Keep It Flexible

Secondly, no particular system, successful in one organization, is necessarily applicable to another organization. All too often, as new techniques are developed, it is thought that if they apply in one area they must apply in all. We all remember former Secretary of Defense Wilson saying, "What's good for General Motors is good for the country." Nothing could be farther from the truth. A 5-year program may make sense to the Department of Defense but would have little or no meaning to the Department of Agriculture or some other agency where a 2-year or 10-year program might be more responsive to their needs. While new techniques open up new avenues of approach to problem solving they must be tailored to fit the situation. Here we are faced with the almost always pressing decision of how much of a system do we employ and how much information do we need.

Quantification Has Limits

Next, when developing a new system, the importance of quantifying the goals is usually helpful in describing where you are going. It also helps you to understand the objectives since now for the first time you are going to establish a set of milestones which, if done properly, can be understood by all who contribute to the success of the project or systems involved.

However, in dealing with numbers and attempting to quantify events, planners try to be precise about things that are uncertain, or inherently imprecise. It is much like measuring things in the field with a rope and examining it in the headquarters with a micrometer. The human element of judgment is all important in determining which, if any, of the milestones are to be held "sacred."

The next point is vital to the proper execution of a management system. The manager must never forget what the objectives were that he established the system for in the first place. Too many systems designed to help people by letting the organization serve them better, actually cause inconvenience to these same people by forcing them to "service the system."

"Too much time is sometimes spent on quantifying various points in a program and not enough time spent on knowing the product and what the real objectives are."

Get Acceptance

The fifth point should be honored before any system is employed. That is, it is most important to secure different points of view as to a system's appropriateness. While there is a reluctance sometimes to bring too many people into the act early in the game, it pays off in the long run since you won't build a monster that you can't live with. The advantages allow you to determine whether or not you are going to have smooth sailing or if there are obstacles which you must overcome. Many times the points taken by the opposite party make little or no difference to the end result and a compromise can be easily worked out and the project moved towards its final destination. A basic principle of management requires that staffs deal with staffs and that needed coordination is accomplished at various levels before they are elevated through the hierachy of management.

Next, there is the need to analyze the choices, either by mathematical techniques or otherwise. The first widespread and explicit use of analyses or scientific methods as an aid to the military decisionmaker was made by the operations research teams of World War II. History records some small scale use of analytical techniques as far back as the early Greeks during the Peloponnesian Wars. World War II operational analyses were quite limited in their character. Generally, they were related to the immediate future involving an air operation. They were simple in the sense that they contained only a small number of independent factors, and generally, the objectives or criteria used were simple and straightforward. A typical example might be what formation to use in attacking a target deep in the enemy territory. This problem had few variables and the obvious criteria were to sustain the minimum number of losses.

Intuition Has A Place

Since World War II both military government and industry have devoted considerable time and attention to the scientific solving of problems. Within the past 10 years, considerable attention has gone into systems analysis in the management of large complex organizations. The use of cost has been introduced into the equation. During the 1960's, we heard a great deal about cost effectiveness but we really should have been thinking about cost and effectiveness. While this may seem like a play on words, there is considerable difference and quite a few options which require human interpretation rather than the mechanical acceptance of solutions. Don't expect the analysis to solve all the conditions. Here, we see the most important element of management coming into focus. It's necessary many times to rely on some intuition. Given the same set of facts, given the same background, many times you see

managers either succeed or fail based upon their ability to interpret what has been shown. The application of intuition makes the difference between losers and winners. Decisions made mechanically oftentimes result in nothing. They are inflexible and are not responsive to solving the problems at hand.

The final point is that an organization should be responsive to the needs and by its very nature responsive to those things which fall within its purview. In developing a system, rather than set up a new staff for each system, greater care should be exercised in dividing the task into subtasks and assigning these to the already existing functional areas. A good example of this was during the missile buildup. The Air Force already had organizations concerned with operations, material, intelligence, comptroller and it was not necessary to duplicate these under a specialized missile organization. A person skilled in procuring aircraft spare parts could easily learn how to procure missile parts. This decision on the part of the Air Force not only allowed us to get into the missile business faster but it allowed for a transitional period between the manned bomber and the strategic missile that effectively utilized our material, manpower and money.

What the Conference Did

One panel of the Federal Management Improvement Conference held in Washington, D.C., on September 21–22, 1970, focused its attention on the growing recognition that the management of large and complex organizations can be effective only if the needs are known through a systems approach. The Panel attempted to clarify the meaning of the word "system" as applied to management and present examples of the systems approach in action.

Mr. Alan Dean, Assistant Secretary for Administration, Department of Transportation, chaired Panel No. 2, entitled, "Applying the Systems Approach to Management." The Panel consisted of John L. McGruder, Director of Management Systems, Department of Transportation; Dr. Joseph F. Shea, vice president and general manager of Raytheon Co., and Guy W. Chamberlin, vice president of finance, Matlock, Inc. The Panel focused its attention on the growing recognition that the management of large and complex organizations can be effective only if the needs are known through a systems approach. The Panel attempted to define and clarify the meaning of the word "system" as applied to management and present examples of the systems approach in action.

Mr. McGruder discussed the organization of the Department of Transportation and traced the origin of the major component which formed the basis of the new Department in accordance with Public Law 87–670.

Dr. Shea, through his experience with the Apollo program, emphasized NASA's approach to systems management. Such a national program so defined and so specific left little to be interpreted. With the highest level of interest in a program, it was with a clear and concise statement of the problem that NASA went forth to accomplish just that. This they did successfully. It was further pointed out that the lack of any specific goals today might well be the undoing of the agency that performed so outstandingly on a precise program.

Mr. Guy Chamberlin, while associated with the Department of Housing and Urban Development, cited the model cities program as a particularly difficult problem to deal with.

The Panel confirmed that the systems approach is a logical step in the development of management theory. The need to take the biggest slice of the universe you can and analyze it without becoming too involved with the workings of the system is necessary to provide management with an insight to its large and complex problems.

However, it was generally the consensus that too much time is sometimes spent on quantifying various points in a program and not enough time spent on knowing the product and what the real objectives are.

One point came out loud and clear by the participants. There is the need for personal involvement and the understanding of how a staff should operate. It is important to always keep the organizational objectives foremost in mind. When a system indicates that corrective action is necessary, then and there that action should be taken. Whenever it becomes obvious that too much attention is being paid to the system and not enough attention is paid to the objectives, it is time to get a "new system." □

"The best things carried to excess are wrong."—Charles Churchill

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ATTACKING THE CRITICAL MANAGEMENT PROBLEMS

"He is a muddled fool," said Sancho of his don—for Sancho knew a windmill when he saw one. Too few bureaucrats do, according to a conference panel consisting of an administrator, a legislator, a systems analyst, and a program planner.[1] This panel concluded that far too many governmental managers tilt at distractions while the really gutty problems flow on unchallenged.

Why this nearsightedness? Like Mr. Magoo, some bureaucrats simply are not aware of their own shortcomings. They will insist that they are hitting the nailhead squarely every time, quite oblivious to the band-aided thumbs of their assisting colleagues and subordinates.

More likely, though, bureaucratic myopia is the symptom of "crisis" management. "First things first" is a good advice only when the "first things" are the ones most important to the organization's objectives—not simply those "first" on the decision scene because they happen to be the most visible problems at the moment.

The panel felt, as do I, that if the management system is reasonably well aligned to the organization's major objectives, the really critical problems will seek the right level in the organizational hierarchy. Everyone seems agreed on that principle but, somehow, it comes apart in real life application. The trouble is that philosophy is easy and practice is not. If all it took to manage well was the philosophy of "management by objective," everyone since Plato should have been a whiz. He framed the concept neatly: "Every art and every inquiry, and similarly every action and pursuit, is thought to aim at some good; and for this reason the good has rightly been declared to be that at which all things aim."

Centralization vs. Decentralization

Two of the four panelists were executives in the Department of Health, Education, and Welfare. So, not surprisingly, we heard about the podiatrist in a small town who applied for a $2,600 grant to train nursing home workers to care for the feet of elderly patients. This application for a grant was favorably endorsed by HEW's regional office and forwarded to headquarters in Washington, D.C. for approval. The application then bounced back and forth among various HEW staff offices in the Washington headquarters and, finally, 8 months later was denied. Here was a classic example of bureaucratic overkill and undercerebration. More to the point of the conference agenda, though, the case was a forceful argument for decentralization—for who should know better whether a comparatively small grant was meritorious than the HEW representative closest to the community where it would have been applied. Even if Johnny-on-the-spot were dead wrong, the cost to the Government would have been far less than the expense of the paperwork and higher-level buckpassing that ensued.

It was gratifying to learn that HEW has since reduced the review time for short-term training grants to as little as 10 days. HEW did this primarily by abolishing headquarters review committees and decentralizing decisionmaking to the regional office.

A handout at the panel session (HEW's *Report of a Task Force on Federal Assistance Streamlining*) summarizes the progress that HEW had made through April 1970 in bringing 50 different grant programs "closer to the people they serve." This report said that in the first year of a 3-year Federal assistance review, HEW had—

- Effected a 10-percent reduction in reports required from States and other grantees.
- Removed 25 committees from the grant review process.
- Simplified documentation resulting in 6,800 fewer pages submitted annually by each State in 22 State plan programs.
- Eliminated over a third of the steps in the review process for project grants.
- Decentralized from headquarters to field the decisionmaking for individual projects in 11 programs.
- Reduced reporting lines from field to headquarters.
- Set up a regional planning system.
- Strengthened regions by appointing six new regional directors.
- Add skilled staff at regional level.
- Relocated regional offices and realigned regional

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[1] The panelists were: Frederic Malek, Deputy Undersecretary, Department of Health, Education, and Welfare—Chairman; Donald W. Reigle, Jr., Congressman, 7th District, Michigan; Thomas McFee, Deputy Assistant Secretary for Program Systems, Department of Health, Education, and Welfare; Robert H. Marden, Director of the Office of Planning and Program Coordination, Commonwealth of Massachusetts.

boundaries to achieve greater compatibility with locations of other Federal agencies serving similar groups.

Centralism is bureaucracy's worst syndrome. It spawns needless layering in the administrative process. It fosters the rosey-hued belief that only top management is infallible. And it breeds inaction by inundating top management with trivia. The Department of Defense suffered an increasing measure of the same syndrome for the better part of the sixties. Assistant Secretary of Defense Barry Shillito called it accurately for the conference participants when he said:

> "Over the years—as the Department of Defense grew, as technology became more complicated and weaponry more expensive—top management sought out the systems, the programs and techniques to make the organization manageable. * * * Too often, the answer was more centralized control, more centralized review, and—of course—intermediate echelons to process the paper and, inevitably, more controls to control the controllers."

The Blue Ribbon Defense Panel revealed that 29 Defense executives reported directly to the Secretary of Defense—a fantastic drain on the top executive's time. Yet, even that inordinately wide span of control pales besides the disclosure (by the State official on the panel) that 189 agencies report to the Governor of Massachusetts.

What we see in Defense today is the Caine Mutiny reversed—a deep questioning of the system from topside down. Deputy Secretary of Defense David Packard makes no bones about putting a stop to "more top-level involvement in the workingman's business." He has said: "We intend to give the Service Secretaries and the Services more responsibility so that they can do their jobs. Before they can do their jobs right they will have to break down some of the multilayer staffing that has built up over the years and work together better to avoid unnecessary duplication. In short, the problem is not the people—it's the system."

Specialist vs. Generalist

The second "critical management problem" addressed by the panel was the shortage of generalists for top management positions. No governmental agency or program—or management discipline, for that matter—operates in isolation. Broader perspectives are the order of the day. Yet, one member of the panel (a State of Massachusetts planning official) noted, 70 percent of Federal civil servants spend their careers in a single specialty or function. It was generally agreed that this parochialism was even more acute in the civil service systems of the States (in Massachusets, it was said, 99 percent of the civil servants are single-specialty oriented).

"What's so bad about that?" countered another panelist. One software giant advertises that it built its reputation on specialists. From there this age-old specialist-generalist dispute developed into a panel consensus that a highly compartmentalized business relying on quite specific disciplines has a lesser need for cross-fertilization. After all, some of the participants must have observed, who wants a general medical practitioner for brain surgery or a general-practice attorney for an antitrust case?

The panel agreed that there is a tendency to use specialists in generalist capacities in research programs. The reason is that a "name" in the research field carries tremendous weight not only with the congressional committee holding the pursestrings but also with the scientific community from which personnel must be recruited. Of course, the name would be much more effective in the lab than dealing with budgets, personnel, facilities, etc. The fact of the matter is that this politics of attracting backing for a program often places administrative and management problems in hands much better suited for adjusting microscopes than balancing the books.

An allied issue was the thought that name specialists brought into Government from the industry, academe and foundations often have strong institutional ties with client groups. Hence, it is difficult for such specialists to cast off overnight ingrained philosophies and specific programs they have had a hand in furthering. Thus, said one or two of the panelists, these divided loyalties could hamper independent decisionmaking by the newly appointed specialist.

Many years ago the late Professor Harold Laski (London School of Economics) cited the most common failings of the expert.

1. Specialized experience clouds "common-sense insights."
2. Specialization breeds "a marked aversion to new ideas."
3. Narrow focus works against seeing "things in their entirety."
4. Specialists' clairvoyance inhibits their ability to "see the obvious."
5. Experts tend to view nonexperts with suspicion.
6. Specialsts' lack of humility inclines them to "keeping the layman in the dark."
7. Finally, "the expert tends to confuse knowledge with wisdom."

That is quite an indictment and, of course, very much overstates the case against the specialist. (After all, most Nobel prizes do go to specialists.)

Other Critical Problems

I have dealt here with only two of the several topics covered by the panel. Other issues addressed included:

- Holding personnel accountable for performance.
- Improving the measurement of results.
- Infusing new blood into the civil service.
- Articulating objectives and sub-objectives. □

ESTABLISHING GOALS AND MEASURING EFFECTIVENESS

Panel on "Establishing Goals and Measuring Effectiveness." Left to right: Joseph Zengerle, Jr., Deputy for Supply, Maintenance and Transportation, Office of the Assistant Secretary of the Army (Installations and Logistics) Department of the Army; Hugh Witt, Deputy for Supply and Maintenance, Office of the Secretary of the Air Force, Department of the Air Force (Panel Chairman); V. B. VonSonn, Assistant to the Vice President, McDonald-Douglas Astronautics Co., Huntington Beach, Calif.

MAN, by nature, is progress-oriented. He is always setting his sights higher. Our goals are the basic motivating force that causes us to press for higher marks. Everyone has some goal he wants to achieve:

- The athlete seeks a new world record.
- The astro scientists focus on outer space—farther and farther.
- The police look toward a zero crime rate.
- The "pop" musician has his eye on that golden disc.

Every organization, industrial or government, shares a common overriding objective—to satisfy the "owners." Every department of a corporation sets goals each year to contribute to the company goal—to produce acceptable goods that can be sold at a profit so that the shareholders can get a dividend. Every agency or office of a government, whether it be local, State, or Federal, likewise must set goals to contribute to the "company" goal—to provide adequate services to the public at the lowest tax rate possible. It all adds up to the same thing—dividend checks to the stockholders or a cut in the tax bill. EXCEPT that more people gain when a government organization attains its goals.

By **A. KENNETH HATCH**

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29

Federal Government Departments and agencies have been constantly hammered by top executives and legislators to improve operating efficiency. During President Johnson's administration the big cry was "War on Waste". The Bureau of the Budget (now the Office of Management and Budget) launched a vigorous cost reduction program in 1965. Every agency got on the "bandwagon" and began looking into their biggest spending areas for the most obvious waste. Procurement practices were hit hard. Unessential offices were closed. Many hand operations were converted to computers. A big "Make-It-Do, Wear-It-Out, Use-It-Up" campaign was waged by General Services Administration. Every segment of the Departments were setting cost reduction goals—even the mop brigades. It was easy during the first few years for agencies to exceed their cost reduction goals. Billions of dollars in savings were being reported to the Bureau of the Budget. Here in the Department of Agriculture we turned up savings of $1.7 billion from 1965 to 1969. Every Federal Government employee heard or read something about cost reduction nearly every day. They were becoming cost conscious. And there was no doubt that our programs had become more efficient.

BUT were all of our programs meeting the needs and demands of our clients? How do you measure the effectiveness of Government programs? What can be done to make them more responsive to needs?

These were some of the questions faced by President Nixon. Soon after taking office he established the Advisory Council on Executive Organization, with Roy L. Ash, president of Litton Industries, as chairman. The Council's mission is to examine the effectiveness of the organization of the executive branch as a whole to be able to carry out the Federal role. President Nixon also established a 10-man Advisory Council on Management Improvement, with Gen. Bernard Schriever, USAF (Retired) as chairman. He gave that Council the following mandate: "To recommend ways in which to improve management and efficiency in Government and to provide for an interchange of ideas with private industry on applying effective management techniques to Government operations."

On February 26, 1970, the President proposed to the Congress the Federal Economy Act of 1970. In this proposal he said: "No Government program should be permitted to have a life of its own, immune from periodic review of its effectiveness and its place in our list of national priorities." Yes, he wanted all of us to question the effectiveness of our programs—to challenge every old program, no matter how sacred it had become to certain interest groups. Was it still needed at all? If so, in its present form? Or, could it be improved?

In the same proposal to the Congress he also said: "Every dollar was sent to the Treasury by some taxpayer who has a right to demand that it be well spent * * * never has the need to curtail unnecessary spending been as vital as it is now. The rising cost of living, which causes so much hardship to so many of our people, must be arrested; * * * this is no time for business as usual, spending as usual, politics as usual. This is the time for cutting out waste and cutting down costs with new vigor and new determination."

The creation, on July 1, 1970, of the new Office of Management and Budget in the Executive Office of the President was further evidence of President Nixon's intent to exert more energy to improve Government operations. It is to play a role greatly expanded over that of its predecessor organization, The Bureau of the Budget. Greater emphasis will be placed on performance evaluation of broad programs, especially those which cross agency lines. They will seek to ensure that organizations keep abreast of program needs. The new office will also take the lead in devising programs for the development of career executive talent throughout the Government.

The new Government-wide management improvement program being administered by OMB has five interrelated elements. Management effectiveness; cost reduction; idea interchange, program incentives, including presidential recognition of exceptional improvement actions; and periodic study of Government-wide operations (in common areas). To emphasize the new element "management effectiveness" the directive states, "The objective of this program is to concentrate mangement attention on persistent problem areas of high level priority. These areas will be identified by a systematic review of agency activities and operations * * * The formal management effectiveness program will require establishing a management system for identifying quantitative goals in the selected problem areas, evaluating performance, and identifying further action as appropriate."

Performance indicators are selected for each management area designated for improvement. These are expressed in quantitative terms, such as, tons of cargo inspected; percentages of expanded coverage; numbers of people or communities receiving benefits; number of review levels or work steps eliminated; days to process applications reduced.

Here at the Department of Agriculture we welcomed the challenge of this new element. Long before the OMB directive, USDA agencies began working with increased vigor to overcome some of the highest priority problems which Secretary Hardin found when he took office. One of the most pressing was the existence of hunger in this land of plenty. The Department had several programs designed to alleviate hunger. The challenge was to make these programs more effective. The Secretary began by transferring several programs such as School Lunch, Food Distribution, etc., to a new agency—the Food and Nutrition Service. Attention

"Wiring cows to computers to measure how much food goes into body fat, energy, excretion, etc., and how much ends up as milk led to a 20-percent increase in milk production in the United States between 1962 and 1968."

was concentrated on solving the problem of expanding the coverage of the various programs. Here are examples of improvement actions taken during fiscal year 1970:

- In the child nutrition program the number of children receiving free or reduced price school lunches was increased from 3.9 million in 1969 to 5 million in 1970. A goal to further extend the coverage to 6.6 million children has been established for fiscal year 1971.
- The Farmers Home Administration reported encouraging results of improvements in the rural housing program. Loan procedures were streamlined, authority to approve loans further delegated. These and other improvements resulted in 350,000 more rural people acquiring better homes during fiscal 1970; and a healthy goal has been set to extend this benefit to 698,900 people in fiscal 1971.
- A training officer established goals to increase the number of people receiving supervisory training by 17 percent in fiscal 1971 by developing a multimedia course applying a new programed instruction technology.

During the days of reporting only those improvements which saved money several innovative improve-

ments went by unnoticed even though they had added substantially to the effectiveness of program operations. Automation usually cost so much that dollar savings could not be defined in many cases. Determining the efficiency of computers or other types of automation is not always easy. Nor is it necessarily the most important measure. The degree to which the automated system improves effectiveness may be of far greater value.

One of the most impressive examples of this which I have seen in USDA is the Animal Husbandry Research Division's automated Energy Metabolism Laboratory at the Beltsville, Maryland Agricultural Research Center. Here balanced studies are conducted, mostly on dairy cattle, to determine how the food is utilized in the animal's body. How much of it goes into body fat, is lost as energy burned up, goes into milk production or ends up as excretia. Various diets are tested during a complete study. The ultimate goal of this research is to increase milk production.

Previously animals were closely observed in stalls or corrals by science aids with clip boards. They recorded frequency of physical movement, amounts of food eaten and various other data by hand. Then to the adding machines and calculators with a huge volume of facts and figures to analyze. In 1956 an energetic young re-

search scientist, Dr. William P. Flatt, conceived of a plan to automate these studies. By 1962 his laboratory was fully operational. Special Plexiglas cages about the size of a dairy barn stall were built. They are equipped with bars, wires, and other mechanical and electrical devices. Some wires are even attached to the cow in the cage. Her physical movements, changes in body temperature, oxygen consumption, and carbon dioxide production are continuously recorded—all automatically. Her food is precisely weighed and excretia thoroughly analyzed. Data is fed by cables to an instrument room where it is electronically logged. All calculations are performed by computer. The manpower and time required to complete energy metabolism studies has been highly condensed. The "impossible" was accomplished.

In the first 18 months of automation 150 balanced metabolism studies were completed. This was more than all of the scientists in the world had accomplished during the preceding 50 years. What was the real measure of effectiveness? Research results of great value were made available to the dairy industry much earlier than was thought possible before. These findings have contributed to remarkable increases in milk production during the past decade. Average milk production rose 20 percent from 1962 to 1968. It is not uncommon today for a good dairy cow to produce 80–100 pounds (10–12 gallons) of milk a day during peak periods.

Bill Flatt has received many honors for his innovations. He is presently the Director of all experiment stations operated by the College of Agriculture of the University of Georgia.

There have been numerous other applications of computer systems employed by the Agricultural Research Service and other USDA agencies to improve the effectiveness of our research and technical programs. Most have successfully enhanced the Department's ability to provide better services to the agricultural industry, rural America, and developing nations throughout the world. We will continue to set goals to carry out our programs more efficiently and effectively. The American people have the right to expect better services from all Government offices. There is no such thing as a program, project, or function that cannot be improved. Nor is there an improvement that cannot be measured in some way. The manager who is not establishing goals is saying in effect that all of his people have reached perfection. I don't believe it! A man without goals is like an automobile without an engine—just not going anywhere without a push. □

PANEL ON
STREAMLINING THE DELIVERY OF
FEDERAL ASSISTANCE TO STATES AND COMMUNITIES

Chairman
KENNETH KUGEL, *Director*
Operational Coordination and Management Systems Staff
Office of Management and Budget

Panelists

WILLIAM J. PAGE
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Department of Health, Education,
and Welfare

FRANK FISHER
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San Rafael, Calif.

A Common Process

On the surface, there may seem to be little common ground between the management of Federal assistance programs and the management of defense activities. It is not surprising since, for the most part we usually tend to categorize activities in terms of their primary objectives and accept the notion that different objectives mean that management is essentially different within each of these categories. Many would likely contend that management of a missile development program has nothing in common with the management of a grant-in-aid program and become so involved in citing the endless examples of specific differences, that basic similarities between the two are completely overlooked.

Actually, whether the process of management is described in the traditional terms or the modern rhetoric; the process remains essentially the same, regardless of the activity. The manager today is universally faced with the fundamental task of effectively combining given resources of men, money, and materiel to do something—whether it be to produce a product, provide a service, or accomplish some other stated objective. This is equally true in both the private and public sectors. Within the public sphere, it applies to defense agencies just as it does to Federal assistance agencies. Further, in these last instances the fundamental parameters of management effort are prescribed. Tasks and objectives are defined in the same legislative process; resources for both flow from the appropriations process; executive controls are exercised through common vehicles; political pressures are exerted from a comparable number of sources.

The discussions of this particular panel, which centered around the operation of Federal assistance programs, illustrated a surprising number of these and other similarities between the management of defense and Federal assistance activities when both are viewed from the most general perspective. The management problems that the Panel isolated, and the directions it suggested for their solution should not go unnoticed by defense managers.

Streamlining the Delivery

of

Federal Assistance to

States and Communities

By MAJ. MARK A. McBRIARTY, *USAF*

Some Problems in the Delivery of Federal Assistance

The central theme that framed much of the Panel discussion was the increasing awareness of the failure of the Government to adequately respond to 20th century challenges of poverty, urbanization, pollution, and the whole range of social problems that plague the Nation today. Too often the Federal Government has responded to these challenges with the almost haphazard infusion of larger and larger gobs of money seemingly convinced that a bigger appropriation to finance another program provides the automatic solution to any problem. The net result has been a proliferation of Federal assistance effort that boggles the mind but makes too little progress in correcting the problems at hand. In short, too often, the Government has failed to deliver the goods and the noble objectives legislated by the Congress remain to be achieved.

veloped in response to national pressures with too little recognition of the structures and preferences at the local level where the problems to be corrected are acute. In the process little note is given to the fact that the use of local governments as instruments of national policy is a relatively recent phenomenon that still runs contrary to a good many established relationships between agencies of government at various levels. The result is a constant contest for control of Federal programs at the local level with corresponding dissipation of their effectiveness. In this regard the Panel agreed that much remained to be negotiated in the partnership that supposedly exists between Federal, state, and local governments.

Similarly, programs legislated are often constructed with a whole array of controls and safeguards built in. Policing these programs to see that they stay within the detailed letter of the law requires expansions of the

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"* * * the use of local governments as instruments of national policy is a relatively recent phenomenon that still runs contrary to a good many established relationships between agencies of government at various levels."

Within our system of government there are obviously a whole range of variables that combine to determine the ultimate effectiveness of any Federal policy or program. The relative influence of each variable will vary with both the time and circumstances involved. The determination of those variables that are most responsible for limiting the success of our Federal assistance programs is a subjective process that yields a list naturally colored by the selector's particular biases. Those variables identified by the Panel reflected these personal differences but considered "en toto," they also indicated some consensus as to those that seemed to be most operative.

For one thing, the panel agreed that insofar as the variables could be controlled, the effectiveness of their combination, and the quality of the resultant product are perhaps the prime concerns of public management. In this sense, the failure to attain assistance program objectives can be laid squarely on the shoulders of the Federal manager. The task of improving his performance and the system within which he must function was a central theme throughout the discussions.

Among those things the Panel noted to be largely beyond the direct control of the Federal manager but nonetheless important to the success of his effort were those political factors common to many programs. On the Federal level, the Panel agreed that too often programs formulated at that level were conceived and de-

control apparatus at every level with proportionate increases in bureaucratic behavior and red tape. Further, they are so narrow in their content and purpose that they often force resources into locally low priority programs that could wait if the local government had a wider range of choice.

A related and perhaps more pervasive problem noted by the Panel was a lack of definition of our national Federal assistance goals and the absence of substantial agreement on the strategies that would be most effective in achieving them. Without this underlying direction, agencies tend to be parochial in the defense of their programs seemingly more concerned with preserving agency autonomy than advancing a national objective. On the local level this results in dysfunctional friction among Federal programs and diffuses the impact of the total Federal effort.

Moving into the field of variables more generally "controllable" in the management process, the Panel identified several factors requiring increased attention. The members noted that management styles must remain flexible enough to accommodate a variety of programs. They agreed that there was no one style appropriate across the spectrum. For example, a local street lighting project demands far less in the way of strict central control than a program with heavy national priority such as air pollution control. A major problem arises when a rigid bureaucratic agency fails to adjust

and continually mismatches different programs and management styles. The result is most often too much or too little supervision and control.

Continuing its discussion of management styles, the Panel identified two basic types. The first was the "production oriented" style that placed the program over all and is characterized by strict observance of the rules. Its main concern is with the delivery of the program and little else. The second style is more concerned with problem solving and considers any program as a probe rather than a finished product. The manager molded in this style is usually systems oriented and consequently is better able to recognize his agency as only part of the total problem which he sees as open-ended. The production-oriented individual is the typical bureaucrat—best loved by Congress for meticulous attention to detail and form. On the other hand, the problem solver is a man with a point of view, more interested in finding a new and better way than wallowing in the comfort of the established routine. The Panel then went on to note that unfortunately our Government system was geared to reward the production type for short term achievement and conformity more than the problem solver who concerns himself more with long range results.

An interesting side effect of the current move toward decentralization was considered in terms of these two management types. As an agency moves to decentralize its program administration, there is a strong tendency to shift the production types to the field while retaining the problem solvers at the Washington headquarters. Although observations about the impact of such moves were limited, they suggested that they were in part probably responsible for some of the rigidity in the delivery system. It would seem that the production type is largely unable to respond to changing conditions at the local level where the program becomes action and seriously limits the viability of many assistance programs.

Considering the growing number of intergovernmental coordinating agencies and councils, the Panel was encouraged that some progress was being made at all levels in ordering the delivery of the many Federal assistance programs. It also expressed some concern about the diseconomies that can result from the indiscriminant use of such instruments, noting that such efforts at coordination should be husbanded and concentrated on those issues and programs actually requiring coordination. Too often, these councils were seen to include everyone who may be even remotely involved with a particular issue with the net result being that the councils became so large that they had a difficult time reaching agreement on the important issues while dissipating their energies on the things that really didn't matter. All agreed, however, that these coordinating activities were a step in the right direction

in that they provided a system of action and a forum for the resolution of conflicts that arise from the different levels of government involved in the delivery of Federal assistance. Further they provide an area focus to Federal assistance efforts and serve as a bridge between the many programs that may be active in a particular area.

Future Objectives

The panel agreed that there remains much to be done in streamlining the delivery of Federal assistance programs to the States and communities. All agreed that more effort should be devoted to the following:

—The construction of more horizontal agency vehicles; organizations whose charters cut across agency boundaries and deal with common problems through a variety of programs that might originate in several different agencies.
—The development of more comprehensive and more meaningful evaluation techniques to enable Congress and the executive branch to continually assess the relative contribution a program makes toward the overall objective it was designed to help achieve.
—The encouragement of more "general Government" types at the Federal level; individuals who can rise above the functional bureaucracies in their thinking to look at their agency's effort as only a part of a larger more complex program directed toward solving a particular problem.
—The clarification of the objectives, responsibilities and roles of Government at all levels; a kind of "fleshing out" of the theories of the "New Federalism" to provide some of the answers as to what should be done and who should do it.
—The cultivation of a better political dialogue between government and the citizen to promote better harmony between the efforts of Federal assistance groups and the citizens they are supposed to serve.
—The establishment of vehicles that afford local communities a meaningful range of alternatives within competing programs so that they can make more rational trade-offs between Federal programs to insure maximum return to the citizens involved.

The panel looked to the newly organized Office of Management and Budget to spearhead much of the effort in these directions. However, it was fully aware that that office could provide only part of the answer. Together with the Domestic Council established by the same reorganization directive, it could do much to streamline the system, by providing needed perspective in policy formulation and an interagency bridge between programs designed to turn policy into action. How effective it will be in this role remains to be seen. ☐

BRIDGING THE COMMUNICATIONS GAP

THE DAY was hot; the sun-baked road dusty with a coating of powdery red clay. On each side, a file of soldiers plodded northward stirring up clouds of dust which settled on sweaty faces. It was Louisiana in August 1941. The 3d Army was on the move to attack the 2d Army. A lumbering reconnaissance car bearing a three-star license plate rolled slowly between the colums and halted where a smooth-faced second lieutenant trod at the head of a short file of men.

The general dismounted, and pacing alongside the lieutenant asked the young officer where he was going and what his mission was. He received a respectful, but apprehensive, reply that the lieutenant did not know and had not been told. The general thanked the officer and, still afoot, quickened his pace to gain on the slowly moving column, until he reached the young officer's company commander. To the captain the general repeated the same questions he had put to the lieutenant. This time he was rewarded with a precise statement of destination and mission. Whereupon, the general asked if the captain was aware of the general's previous order to all commanders that each member of their command be informed of his specific destination and mission. The captain promptly replied that he was aware of the order. At that instant he was relieved of his command.

In his brusque and direct way the general accomplished something that all managers need to do. He had found a communications gap and taken prompt action to bridge it.

Most managers, though some may not recognize it, have a communications problem. This article is presented with the hope that managers at all levels will become aware of the problem and some of the ideas others who have wrestled with it have found useful.

As one who has personally found it more than challenging over the years, I was fortunate enough to participate in a panel at the Federal Management Improvement Conference, which dealt with the subject: "Bridging the Communications Gap."[1] In preparing this article, I have drawn on the discussions of this Panel, as well as my personal experience.

Examining the problem requires finding answers to three basic questions. Do I have a communications gap in management? How can I determine where such a gap occurs? What do I do about it?

Some experts have concluded that every organization has a communications gap, and that this in itself is not really the problem. Rather, they argue that the real problem is keeping the gap at a manageable level. This logic seems conclusive when one considers that every organization involves humans and that humans are not infallible communicators. We all tend to hear what we want to hear and to screen out what we consider noise or static. Each of us can reflect on how much of what one's wife or husband says fails to penetrate his consciousness. We listen only to what we feel is relevant.

By **WILLIAM E. ODOM**
Special Assistant
Office of the Assistant Secretary of Defense
for Public Affairs

[1] The panelists were: Ned D. Bayley, Director, Science and Education, Department of Agriculture—Chairman; Frank P. Sherwood, Director, Federal Executive Inst., Charlottesville, Va.; Anthony Downs, Consultant, Real Estate Research Corp., Chicago, Ill.; Robert C. Edwards, President, Clemson University, Clemson, S.C.

A friend of mine pointedly demonstrated this recently. Dressing for work one morning, he unwrapped a new shirt, slipped into it, and attempted to button the collar. His eyes popped and he uttered a choking sound. His wife laughingly asked what size neck he was trying to stuff into what size shirt. He responded that, as always and forever, he wore a 16. She reminded him that for a year or more she had repeatedly told him that he was buying his shirts too small. On reflection, he conceded that her reminders that he was growing were so unpleasant that he had unconsciously screened these words from his hearing over the entire period.

If one then concedes that unconsciously, because of prejudices, values, distractions, or whatever, he screens the audible to the extent that only what he regards as relevant comes through, think of what one does with the visible. How much of what one sees does he communicate? The answer is unquestionably "damned little." The eye is a remarkable recorder that can take in at a glance much more detail than one can possibly communicate verbally.

Given these factors, apply them to a six-tiered hierarchally constructed organization with A at the top of the pyramid and F at the lowest level. How much of what F sees gets to A through the communication channel and how accurate is what A gets? Applying the laws of mathematical probability and crediting F with reporting 90 percent of what he observes and all levels with the finest intention of accuracy and completeness, it is estimated that A gets accurately 53 percent of what F reported. The remaining 47 percent is noise or static in the system. If A then is to make a decision based on this communication linkage he's in a real spot. He has at best a 47 percent chance of being wrong, depending upon whether he can, in fact, distinguish noise from fact which mix as indistinguishably as water from two glasses. Given these probabilities, two consecutive right decisions are nothing short of miraculous.

Looked at from the top, A down to F, the same problem arises. The boss issues an order in broad form applicable to all at the B level. They, in turn, elaborate on his broad directive. So does the C level, and each level below. When the boss's general directive gets interpreted and expanded at each successive level, by the time it reaches the lowest level the employee has at most a fragment of the objective, with some specifics as to what he personally is to do. He lacks any concept of the overall objective, its purpose, and probably any real sense of involvement. At worst, he has a specific directive garbled in transit through elaboration, inertia, antipathy, or misinterpretation.

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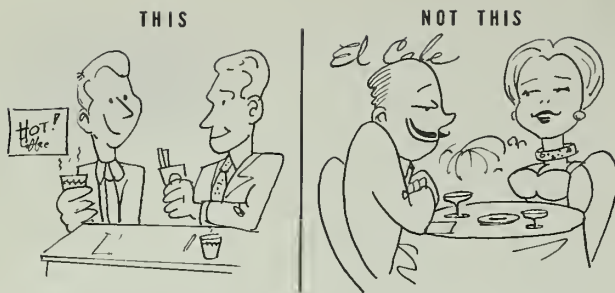
"The unstructured communications link."

With these factors introduced, it is little wonder that *A* finds that what he directed be done isn't being done.

This answers whether or not one has a communications gap. The test is for *A* to find out whether what he directs is being done at the *F* level.

Having determined that a communications gap exists in your organization, the next problem is to pinpoint where the gap is. The general I mentioned found his answer by starting at the lowest level of command and tracking up the chain until he found precisely where the word stopped. There was where the gap occurred.

To track down the chain from top to bottom to determine how much of what *A* wants to know is reported at each level of the organization, is another method of locating the point of breakdown.

Once one has established the fact that there is a communications gap at a precise point in an organization, how can this be remedied?

The general plucked out and replaced the blocked switch. Effective, but the offender may have other virtues which warrant his retention.

Approaches to this problem are probably legion, but here are a few that have met with some degree of success, and are worthy of consideration.

First, if you are the top man, *A*, look at yourself. Frequently you will find that you are a communications gap. Examine your calendar over the past month or two. What percentage of your time did you spend listening to and talking with those at the lower strata of the organization? Chances are very, very little. You are involved generally with your immediate superiors, your peers, or your immediate subordinates, and with only so many hours in a day you don't find time to get down on the production level, and have a shirt-sleeve give-and-take conversation with the man who is doing the work you are directing. Budget time for this and you will find that it pays dividends. You gain a knowledge of who is doing what and how well, how he feels about the job, whether he understands what you are trying to accomplish and what incentives can spur him to greater effort. He gains in understanding you and particularly in feeling that he is involved, important to the process, and recognized.

Test yourself to determine whether you are really listening to what is said or are tuning out what is un-pleasant or, hopefully, irrelevant. You can do this at the office or, if you prefer, at home with your family. Here again, the odds are that you hear the words but tune out more than is warranted.

In attempting to be a better listener, pay heed to the words, but don't overlook the emotional signs that accompany their utterance. Timidity, good manners, the fear of offending, or fear of personal economic or physical security frequently camouflage real gut feelings which are a measure of the depth of feeling. The words "stenographic pool" can bring a surge of resentment or other emotion that may never be apparent in the words spoken but are evident in physical symptomatic changes. Watch for these, they can be a tipoff to a really deep-seated but unexposed problem which warrants careful and immediate attention. If these problems can be surfaced and dealt with, you may be able to repair an organization which otherwise would be headed for a breakdown. Notice, as you listen, any changes of vocal emphasis, complexion, or physical attitude on the part of the talker. If such occurs, you may be able, through patience, to get to the root cause.

Be a learner if you aim to be a listener. Learn something about the quality of communications within your organization. Do they convey what is meant? Are they specific in their statement of mission or objective? Do they contain the essential elements of a news story—who, what, when, where, why, and how? If they are deficient in any one of these, the result will be distortion, static, and ambiguity.

Learn what communications networks exist within your organization. There is always an official one, but there are generally networks established on the basis of friendship, similarity of tasks, technical expertise, common educational and/or social background, etc. Watch who talks to whom on a given problem. Chances are you will find at least one unstructured communications link established and maintained during the life of the project.

Learn how to use these unstructured circuits, by plugging in wherever it is advisable and serves a productive purpose. One of those attending the Panel freely admitted that he did this twice a month by taking his secretary to lunch. It served his purpose, but I hardly recommend that solution if your secretary is smart enough to catch on to the fact that she is being used, and independent enough to resent it. There are other methods, however, such as social contact at a family weekend arranged with members of your staff; an afternoon at the ball game with a staff member, or a simple 10-minute coffee break shared with another. I have found that you can readily determine what one of your staff really thinks of his boss, his job, and your policy and direction by simply listening to his wife when you have the chance to talk with her. She's probably less inhibited than he about vocalizing her and reflecting his feelings.
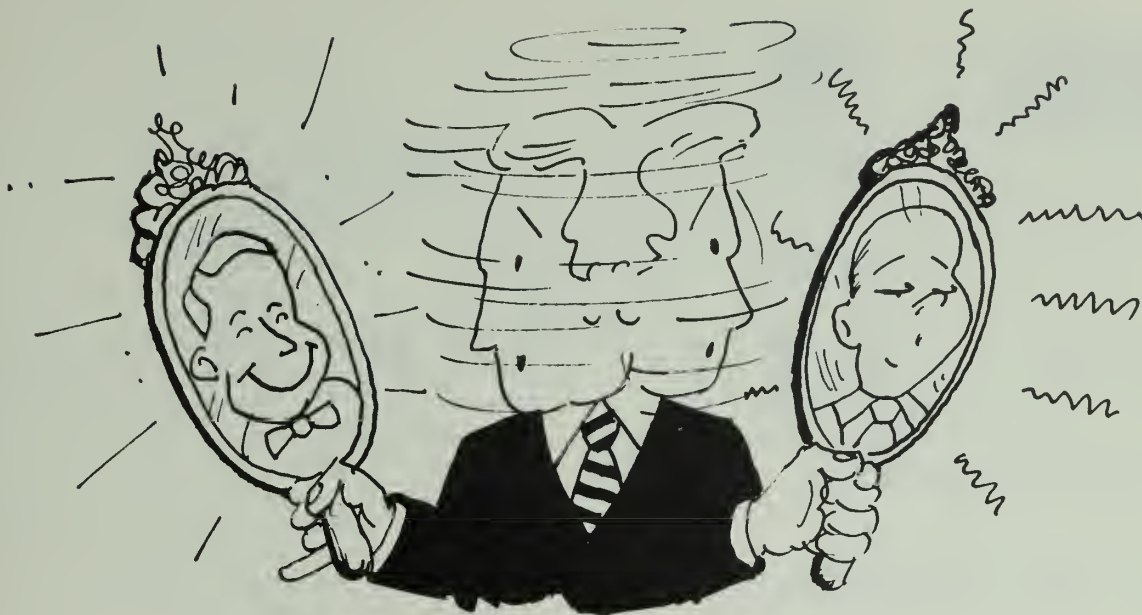
*"O wad some Pow'r the giftie gie us*
To see oursels as others see us!"

Remember one has to learn as an executive in an atmosphere of ambiguity, for there are no criteria for being an executive and there is no fixed level of executive expertise. To do this, the most important thing one must learn is that what he does in nonverbal conversation is most important. There is among men, and for that matter among nations, an inherent resentment of he who is top dog. Anything—nonverbal as well as verbal—that can be interpreted as an expression of superiority, snobbishness, or lack of appreciation will be so regarded by someone. And the worst offense is to give the subordinate the impression that he is being ignored. Once that is done, intentionally or not, recovery of the relationship which is conducive to productivity, loyalty, and dedication is both difficult and prolonged, if remedial at all.

Attentive listening, continuing learning, and the development of some system of mirrors in which one can see something of the impression he is making in his organization plus attention to adequate, concise, and clear communications can make a marked improvement in how well one manages an organization.

Another method employed by some in fighting the error factor that persistently creeps into communications within an organization is redundancy. This consists of giving overlapping responsibilities to two subordinates. It violates the sanctity of hierarchical organizational structures but sometimes it works, and when it does the boss gets two separate and alternative solutions for his consideration, more facts viewed from different and independent perspectives. Hopefully this is accomplished without a lot of milling around.

Counterbiasing is another system employed to fight the error factor. It works like this. You have a problem which you have to resolve. You recognize that if Director Brown is given the problem, because of personal prejudice, protecting his own prerogatives, his professional background, or for whatever reason, you will get back only certain alternatives and a given recommendation. You, at the same time, recognize that given the same problem, Director Adams would come up with a different set of alternatives and a different recommendation. You know, too, that this problem is going to affect both, whatever the decision. Counterbiasing Brown's prejudices, or predelictions with those of Adams, you can probably slice down the middle and come up with a reasonable solution equitable to each and with a fair certainty of being somewhere close to the mark.

An alternative method of resolving the problem of error creeping into the communications system is by flattening the hierarchy. This means cutting out some of those in-between layers of the structure that serve as relay points either condensing communications en route from bottom to top or elaborating on those directions traveling from top to bottom. This approach has a number of things going for it. First, it takes out some of the noise-makers and static generators in the middle. Second, it permits a reduction of positions which equate to people, thus economizing on both people and dollars. Third, and probably more important, it gives the man at the bottom a feeling, stemming from reality, of greater involvement. Lest one leap for this as the panacea, however, look carefully to see that in flattening the hierarchy, you don't give the top man an impossible
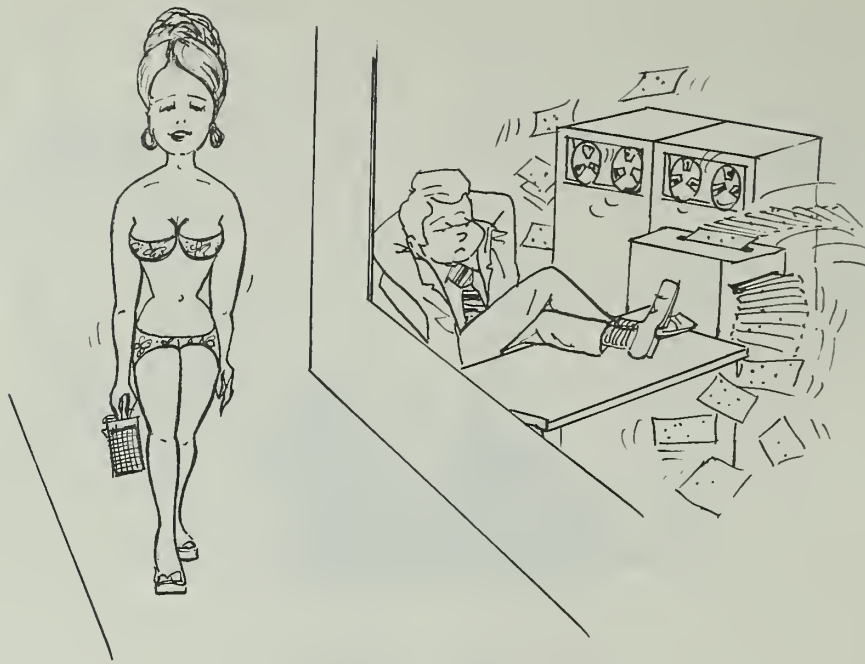
"Computers like bikinis merely surface the basic data."

job by having so many of his subordinates reporting directly to him that he has no time for anything other than a supervisory role. This calls for the exercise of judgment, and a recognition of the top man's capacity to absorb detail and to make countless but essential minor decisions.

Another method often employed in the accomplishment of a specific task which tends to minimize distortion in the communications system is the establishment of ad hoc task groups which draw their expertise from those in the organization without regard to organizational wiring diagrams. The members of the task group are selected—and that is the acid test—on the basis of their expertise in one facet of the problem. A task force leader is appointed and given carte blanche access to the boss. Communications linkage is formed between members of the task force and they are in business. The result can be as successful as the Polaris program or the Apollo program or, if the group is improperly selected, simply disastrous. Selection is the key and the requisite is a specific interim task.

The advent of computers is held out by some to be the answer to the key man's requirement for all of the facts on which to base a decision. What the promise ignores, however, is that computers, like bikinis, merely surface the basic data. They give it in such masses and in such detail that they would give a glutton for facts progressively fatal indigestion. This then calls for someone to condense, strain, and interpret this outpouring of precisely and minutely detailed information. Hence a new staff is created upon which the executive becomes

dependent, while he, almost from necessity, has less time and attention for his subordinates.

What really is the answer? How do we really bridge a communications gap in our organization?

I would say look first at yourself. Learn what you are doing that you should not be doing, and what you aren't doing that you should be doing. Remember all the while that what you do in nonverbal communicating—i.e., through your actions, attitudes, physical appearance, and postures—communicates just as clearly as do your words.

Second, learn all that you can about who talks with whom and when in your organization and how to plug in on these communications networks, unofficial as well as official.

Third, remember that to each individual in your organization he is the most important asset you have.

Fourth, get each individual involved by listening to what he says and through that process letting him know that you do care about how he feels, what he does, and what he thinks.

Fifth, examine whatever alternatives are available to you to minimize the error factor in your organizational structue and put them to work.

You will know whether you have succeeded when your organization does what you direct and when you get all of the facts you need to make the decisions upon which your directions are based. While you are striving for this goal, check continuously and check again. With enough effort and enough checking, things will have to improve or you had best look for another job. □

EVALUATING AGENCY MANAGEMENT

By ECKHARD BENNEWITZ
Deputy Comptroller of the Army

THE MAJOR theme of Panel 7 was the use of internal audit for evaluating agency management. The views expressed on the organization and importance of internal audit paralleled those of the Fitzhugh Blue Ribbon Defense Panel on Audit Procedures. The auditor, both internal and external, has a vital role to perform in providing an objective, impartial and competent appraisal of agency activities. The auditor provides the independent appraisal of agency effectiveness and efficiency, highlighting significant problems and providing realistic solutions. Although initially internal audit and review were limited to financial matters, with the increasing complexity of organizations and operations, the audits have become management and operational audits. The auditor performs a management engineering role, rather than the financial audit. Within the Army, for example, over 85 percent of the internal audit effort of the Army Audit Agency is directed toward management audit.

Panel on "Evaluating Agency Management." Left to right: Nathaniel E. Kossack, Inspector General, Department of Agriculture; Gregory J. Ahart, Deputy Director, Civil Accounting and Auditing Division, General Accounting Office; John P. Abbadessa, Controller, Atomic Energy Commission (Panel Chairman); Robert J. Sullivan, Principal, Peat, Marwick, Mitchell & Co.

Report to Top Management

The Panel stated that the Internal Audit Group should report to a high level of management in the organization, preferably the Secretary or the agency head. Thus, the inspector general of the Department of Agriculture, which combines both the inspector general and internal audit roles for the Department reports directly to the Secretary. This is in line with the Fitzhugh recommendation. The inspector general of Agriculture has developed a Significant Disclosure Reporting System to bring significant audit findings to the immediate and personal attention of the Secretary. These involve items of congressional or secretariat interest; items which could have adverse public and press reaction; findings involving substantial financial loss to the Government; or violations of law, maladministration or personal misconduct. These reports are submitted on a timely basis and do avoid surprises to top management.

External Audit Complements Internal

The Panel took a constructive viewpoint of the value of the external audit by GAO. GAO provides a valuable complement to the internal self-evaluation audit. As has been done in Defense, working relationships can be developed between GAO and the agency to avoid overlap and duplication of audit effort. The questions which must be addressed in appraising agency management by either GAO or agency internal audits are the same:

- Is the program accomplishing the objectives for which it was established and for which funds were appropriated?
- Is there adequate guidance from top management to the operators?
- Will the results be accomplished within the financial plan, recognizing productivity?
- Is there a relationship between performance and costs?
- Are there clean lines of authority and responsibility?
- Is there an accurate, pertinent, and timely flow of data to management to permit control and evaluation of performance and goals?
- Are the promises and objectives stated in the budget being met?

Followup Failure Impairs Effectiveness

Management must recognize the value of the auditor or evaluator and consider the auditor as a member of the team and not apply a defensive position. The internal auditor, on the other hand, must not be the prosecutor, but the competent management engineer who provides an impartial outlook to the problem and provides management with alternative solutions.

There must be a closer relationship between the findings of the internal audit and the agency budget formulation and execution. The audit findings clearly indicate specific dollar adjustments. In this period of major financial restraints, these audit findings must be translated into budget actions. For example, if the internal audit has found areas for improving the transportation activity, these savings on a realistic time phased basis must be incorporated into the dollar requirements for transportation.

Internal auditors far outnumber the number of compliance auditors. It was generally agreed that followup on audits to assure implementation of important recommendations is a major problem. Failure to provide followup can endanger the effectiveness of the total audit effort. To provide a track on repeat audit findings, Army, for example, has established an automated Deficiency Identification System, providing quarterly analysis of GAO, Army Audit Agency, Defense Comptroller Internal Audit (DCIA), and other audit findings over several years by command and installation. The Fitzhugh Advisory Committee on Audit Procedures recommended increased compliance followup as well as the transfer of the compliance function to the Army Audit Agency. This, of course, would give one agency both the judge and jury role. The Fitzhugh Advisory Committee recommends that the followup action be taken by one of the auditors involved in the initial audit. Also, the Fitzhugh Advisory Committee stated that the emphasis of the audit effort should be on the evaluation of the underlying operating system

rather than the identification and reidentification of operating errors and deficiencies.

The OMB Role

The Panel stated that the Office of Management and Budget (OMB) must become more deeply and systematically involved in the evaluation of management. OMB is in a position to make these appraisals and has the power and authority to improve agency management. The Conference Chairman, Mr. Dwight A. Ink from OMB, indicated during the summation meeting that OMB is seriously thinking of undertaking such an evaluation of management.
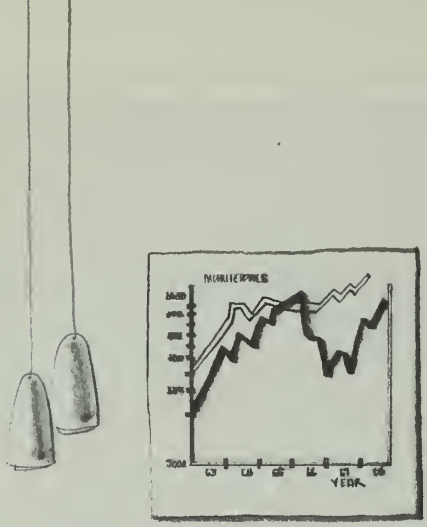
On another item, the Panel deemphasized the role of internal audit staff in the audit of cost reduction savings. The cost reduction audit should be a low level effort, applying order of magnitude appraisals to the savings and not a detailed in-depth audit of the savings by internal auditors. Field internal review staff could adequately perform the cost reduction audits. A significant expenditure of internal audit staff is currently being devoted to this function. Army, for example, is devoting over 39 man-years of annual effort to the audit of annual cost reduction savings. The Panel would recommend significant downward adjustments in this level of effort devoted to cost reduction audit.

Conclusions

In summary, internal audit is necessary for independent appraisal of agency management effectiveness and efficiency. The auditor is here to stay. A proper attitude of mutual assistance between the auditor and management and operating personnel must exist. Good rapport between the auditors, the people who are being audited, and management must exist. The auditors (internal or external) need cooperation, access to data, respect and the confidence and trust of the agency. The auditor, in turn, must be fair, objective and competent and not seek headlines but corrective management improvements. The reviewer and reviewee have common objectives to assure that the agency goals are met as planned within the resources allocated. Performance must match expenditures. The role of the internal auditor today is management engineering, with limited effort on financial audit. Thus, an accounting background for the auditor is secondary to his knowledge of management, management improvement techniques, logistics, personnel, and military organization. □

Making Management Decisions Financially Meaningful[1]

the comparative analysis of alternative programs among which choices must be made to assure efficient, effective achievement of these goals.

The Federal Government budgeting and planning process has been improving but more improvement is needed in four major sectors:

    (1)   Horizontal integration of program planning, budgeting and evaluation in the agencies. Because of their large size, the agencies tend to set up organizations of specialists in each of these functions. This makes coordination difficult.

    (2)   Vertical integration so that more meaningful data will flow from the agencies to the Office of Management and Budget.

    (3)   Development and accessibility of needed data banks, and greater use of analytic and evaluation techniques, and finally

    (4)   Communication channels between all levels of the Executive Branch of Government.

In the agency the budget is the primary vehicle for integrating management decisions and fiscal policy. Each year the President's budget contains thousands of independent decisions which, taken together, indicate the program and financial plans of the Administration. Since demands are infinite and dollars limited, choices must be made between alternatives.

The budget covers only one year. This tends to favor short range objectives. It is difficult to get funds for projects, such as needed computerization of manual procedures, where the start-up costs are incurred in the current year but the benefits and cost reductions are several years away. There is also a tendency to favor

Summary

In the Federal Government, virtually all significant management decisions must pass through the budget process for policy approval by the topmost managers or for implementation consistent with previously established policy. Thus, the Federal budget provides the decision-forcing discipline which pervades government operations. The decision-making process includes continuing analysis of national goals and priorities and

programs that are popular at the moment, rather than untried innovations which will produce savings and improvements in the future. The agency management always knows of many worthwhile projects that need to be done but for which resources are lacking. This puts tremendous pressure on management to improve existing techniques and develop new ones so that, by cutting costs of current programs, there will be funds available to undertake some new and greatly needed projects.

Industry is faced with the same management problems as government, except on a smaller scale. Industry also uses the planning, programming, budgeting techniques. In accomplishing its objectives, industry uses four management principles:

(1)   Clearly defined lines of organization and delegation of authority to act, agreed upon objectives and expected results.

(2)   Measurement of quality and production performance.

(3)   Accountability for results and adequate rewards for performance.

(4)   Cost-benefit analysis of new and existing programs. This involves a comparison of competing new and existing projects and the elimination of worthwhile projects if greater yields are available elsewhere for the same funds.

(5)   Budgeting over a one to five year cycle so that major emphasis is placed on long run costs and benefits rather than short run savings.

(6)   Designating the budget so that it includes stretching objectives—attainable but only with effort. Budgets are viewed by managers not as authorized objectives but as a starting point from which they can demonstrate their managerial competence and ingenuity by accomplishing the objectives at a lower cost. The most effective control of costs requires that a state of budget-mindedness pervade the whole organization—not just the office of the budget director.

There are many new analytical techniques which are helpful in arriving at an understanding of the complicated problems that face top management today.

The work of middle and lower management involves solving problems within the existing resource flow. On the other hand, top management deals with altering the resource flow or expanding or contracting the nature and scope of the organizations' aims. Hence these new techniques are most useful to top management.

Good top level managers will be alert to two things:

(1)   Demand for problem analysis for decision making has resulted in the development of many new statistical and mathematical techniques, two of the most useful of these are simulation and modeling.

(2)   The new generation of people coming into government and business have been trained in these techniques. It is not necessary for managers to have a knowledge of the mathematics of these analytical tools but they will make better decisions if they take the opportunity to use the products of these analyses which can be made available to them. □

By C. S. MASON
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Pollution—Now you see it, now you don't.
Evidence of effective pollution control in some
"before" and "after" photos.
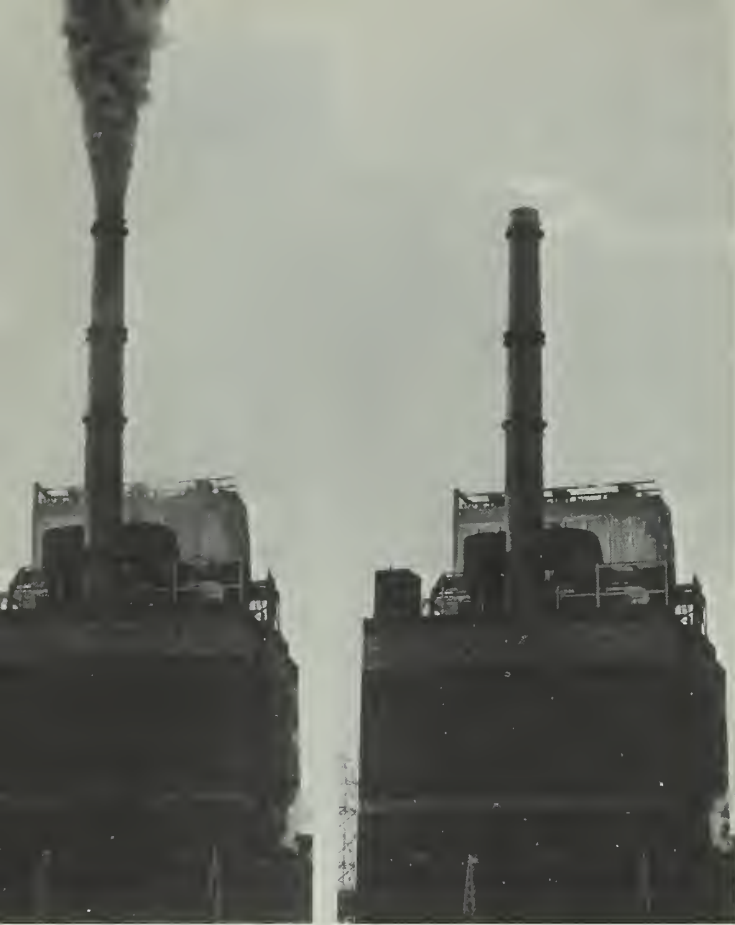
POLITICS
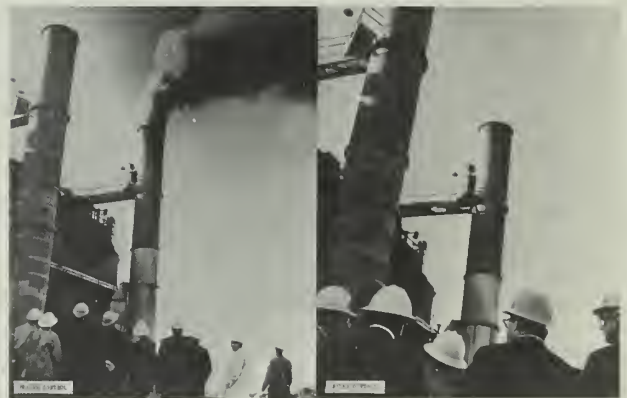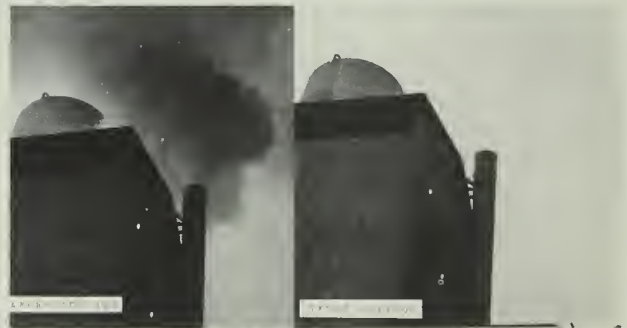
AND CHANGE IN POLLUTION CONTROL [1]

By J. CLARENCE DAVIES, 3RD
Council on Environmental Quality *

T HE RELATIONSHIP between politics and change is a direct one. People and groups have a stake in the *status quo*—if they did not a different *status quo* would exist. Therefore when change takes place, political struggles are likely to ensue, because some people will fight to save the *status quo*.

Changes in Public Attitudes

More than anything else, rapid change characterizes the present efforts to control environmental pollution.

"Anyone who says that pollution is a non-controversial issue has never tried to do anything about it."

Perhaps the new political visibility of the pollution issue is the most striking aspect of this change. Politicians, civic leaders, businessmen, students, and housewives are all talking about environment, ecology, and pollution. Many are even doing something about it.

This political visibility of pollution has a number of consequences. It means that many more actors, both individuals and groups, are attempting to influence the steps taken to control pollution. The day of the lonesome sanitary engineer or public health officer is past. He now has to spend half his day fending off irate conservationists, worried factory owners, and inquiring newspapermen. It means that the pressure on those who plan and make decisions on environmental matters is much greater, because there are many people eager and willing to second-guess the decision-makers. It also means

that there will be much more conflict over the decisions made.

Not only is pollution more visible, both literally and figuratively, but the expectations of the public are changing. The public expects government to do much more than it has done in the past and the public also demands that it be done more rapidly. Furthermore the intellectual framework of both public and government is changing. Pollution control is no longer looked upon as a public health effort but as an end-in-itself, a goal to be pursued for its own sake.

In back of all these changes looms the ever-accelerating pace of technology. In this connection let me cite just one figure: Chemical Abstracts last year listed approximately 250,000 newly discovered chemical compounds.

Changes in the Legal Framework

All of these changes in public values and expectations have led to changes in political views and thus to changes in laws and administrative procedures. The process is partly circular, because changes in the legal framework reinforce and contribute to changes in public values and expectations.

Each session of Congress brings about significant changes in the content, emphasis, and procedures of Federal programs. Before the end of the year we will probably have a major and far-reaching air pollution bill enacted into law. I have been working on the President's 1971 legislative program, and I can offer no respite for next year. The pace of State legislation if anything exceeds that of Congress, and each month sees a number of new laws signed by the Governors. Each legislative innovation tends to be followed by changes in administrative arrangements.

At the Federal level two major new agencies have been created to deal with environmental problems. These two agencies will not completely solve the problems of administrative complexity and lack of coordination which characterize the pollution control field, but they represent major and far-reaching steps in the right direction.

The Council on Environmental Quality was created on January 1st of last year. The Council has three members including Russell Train who serves as chairman. The Council is part of the Executive Office of the President and it serves as a staff agency to the President. It has two major functions—to advise the President on environmental policy, including legislation, and to coordinate the efforts of all the Federal agencies with respect to their impact on the environment.

Despite the very short time which the Council has been in existence and the very small size of its staff—it has about fifteen professionals at the moment—I believe that it has made real progress in fulfilling both of its functions. It has provided policy advice on a broad range of matters and has helped to produce a bold and imaginative set of legislative proposals for next year. Its attempts to coordinate Federal efforts have been focused largely on the development of the process for filing environmental impact statements. This process has the potential for becoming a paperwork nightmare, but if administered properly and supported by the Federal agencies it may well represent one of the most powerful tools for bringing about an improvement in the nation's environment.

The Environmental Protection Agency, the second organizational innovation, formally came into existence on December 2. It combines the major existing anti-pollution agencies into a new, independent unit whose Administrator, William Ruckelshaus, reports directly to the President. EPA, as it has already come to be called, encompasses five major areas of responsibility—air pollution, water pollution, solid waste, radiation, and pesticides. It has significant regulatory authorities under the existing air, water, and pesticide acts, but it is also very much a planning and research agency. EPA in no way alters the functions of the Council, although both agencies will have some responsibility for formulating pollution control polcy.

Pervasive Ignorance

All of these changes occur in a field beset by pervasive ignorance, or, to put it more politely, by lack of knowledge. There is a great shortage of trained personnel at all levels of government and a consequent lack of technical and bureaucratic knowledge on the part of those who must administer programs. The onrush of new problems and new programs compounds this problem. The unsatisfactory performance of State governments leads to a greater emphasis on Federal action, but the Federal government suffers from the same limitations of inadequate resources and inadequate knowledge.

There is a great lack of scientific knowledge and particularly there is pervasive ignorance of the effects of pollution. We do not know the effects of most pollutants on human health or on the environment. The tests which we now use to determine such things as carcinogenicity might be compared to the religious rituals of the ancient Romans—we examine the entrails of the mice and if the omens are favorable we register the drug or pesticide. The relationship of these tests to effects on human health are often unclear.

We are ignorant of much of the technology needed to deal with pollution problems. We lack technology to conduct adequate monitoring and surveillance programs for most pollutants. We also clearly lack efficient technology for controlling many forms of pollution. The tactic of "leading the industry" by establishing standards and then trusting that the technology will be found to meet the standards may be very effective but it is hardly foolproof.

Conflicting Constituencies

The rapid pace of change, our lack of firm knowledge about pollution, and the inadequacy of past efforts to deal with the problem leave plenty of room for arguments, and conflict and conflicting constituencies are a major political feature of pollution control programs. Anyone who says that pollution is a non-controversial issue has never tried to do anything about it.

To radically oversimplify things, the conflicting forces generally line up with the conservationists, other citizen groups, and health groups on one side and industry forces on the other. A wide spectrum of opinion exists among the "white hat" forces, but at the present time the issues are sufficiently basic and primitive so that they have been able to present a united front.

Industry (as well as polluting municipalities and Federal agencies) represents the *status quo*. Any serious attempt to consider environmental factors in the way a factory is run or in the kinds of products produced is a major change for most corporations. A wide spectrum of opinion also exists on the industry side, but for the industries affected by pollution controls there is the shared misery of lost money. Pollution control is expensive, and it adds nothing to the value of the goods produced. There are, of course, psychological compensations. The people who pollute the most also tend to be the people who believe that the issue of the environment will somehow go away.

The long-run solution to industry's problem is to alter the economic system so that it no longer penalizes the firms who control their pollution. Whether this will come about through a system of taxes or effluent fees or through more certain and uniform enforcement it is too early to tell. Probably it will have to be a combination of both. In any case, until the economic system stops placing an incentive on pollution the achievement of clean air and water will be impossible.

Politics and Progress

Given the rapid pace of change, the resulting political conflict, and the other factors I have discussed, it is surprising that anything can be accomplished in controlling pollution. But the rapid change is itself some measure of accomplishment, given the abuse of the environment which has been permitted in the past. We are not doing enough, but there is a basis for optimism.

The great increase in public support and attention may provide the political muscle necessary for real progress. Enforcement efforts are beginning to have an effect, and certain major industries now have to cope with pollution control as a significant factor to be reckoned with. Perhaps most importantly our knowledge about the pollution issue is increasing. We have a better realization of the complex interrelationships which contribute to pollution, as demonstrated by the Senate version of the air pollution bill which is probably the strongest land use bill ever seriously considered by the Congress. We have a better conception of the universe of problems with which we're dealing. Mercury woke people up to the fact that BoD wastes and the half-dozen major air contaminants did not account for all significant pollutants.

The recent organizational innovations at the State and Federal level reflect this increased knowledge and provide a basis for further advances. The effort to improve the quality of our environment will not be easy, but I am convinced that it can and will be successful. □

". . . when your fountain is choked up and polluted, the stream will not run long, or will not run clear with us, or perhaps with any nation."—Edmund Burke

MOTIVATION AND HARD TIMES*

ONE OF the greatest books in the English language, though rarely acknowledged as such, is the unabridged dictionary. It contains more distilled knowledge than any other single volume. There is every chance that an author will find his concepts broadened and sharpened by definition.

"Motivation" is no exception. Just how does one motivate? What does motivation mean?

"To motivate" is simply "to provide with a motive." But the definition of motive, "something within a person that incites him to action," stimulates the thought processes. Clearly, when we talk about motivating employees we mean creating within them something that will incite them to *desirable* action, to actions that will assist the organization in accomplishing its mission. To anyone who has been through basic training or high school ROTC, the term "morale" immediately comes to mind. Morale is "a confident, resolute, will-

ing, often self-sacrificing and courageous attitude of an individual to the function or tasks demanded or expected of him by a group of which he is a part that is based upon such factors as pride in the achievements and aims of the group, faith in its leadership and ultimate success, a sense of fruitful personal participation in its work, and a devotion and loyalty to the other members of the group."

Diverse Views

To illustrate, and at the same time philosophize a little about the role of the individual in large organizations, the dictionary quotes Peter Wiles as saying "High morale and personal pride are at least barely possible in large firms."

There is a second definition: "a sense of common purpose or a degree of dedication to a common task regarded as characteristic of or dominant in a particular group or organization: ESPRIT DE CORPS."

One is also told that "the morale of the ship improved after 2 days of shore leave" and "the morale of the reform group suffered a severe blow when their candidate was defeated."

Still another definition is: "a state of individual psychological well-being and buoyancy based upon such factors as physical or mental health, a sense of purpose

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*This article was inspired by the discussions of FMIC Panel 10 (Major Organizational Change and Motivation). The panelists were: J. Kenneth Mulligan, Director, Bureau of Training, Civil Service Commission—Chairman; Carl W. Clewlow, Dep. Asst. Secretary of Defense (Civilian Personnel Policy), Office of the Asst. Secretary of Defense (Manpower & Reserve Affairs); Boyd Myers, Deputy Asst. Admin. for Administration, National Aeronautics & Space Administration; Newell B. Terry, Director of Personnel, Department of Interior.

and usefulness, and confidence in the future." For this one the authors provide as an illustrative sentence, "a long period of unemployment can weaken his morale."

Apparently, behavioral scientists use the term "motivation" rather loosely. As the Mad Hatter said to Alice, "When I use a word, it means exactly what I want it to mean." When Herzberg says "One more time: How do you motivate employees?" he means, "How do you fill them with something that incites them to the *proper* action?" The term "behavioral science" is itself very "in-group." Dr. Dean Berry, in his recent AMA book on personnel research, suggests that "behavioral science" replaced the term "social science" because wealthy conservatives from whom researchers sought grants tended to confuse the latter term with socialism.

At any rate, our concept of "motivation" today embraces the idea of the establishment and maintenance of high morale along the lines discussed above by Mr. Webster in his Big Book, and in accordance with the traditional concepts of the military services over the years. A military officer may have some doubts about how to motivate civilian employees but he is quite familiar with the importance of morale on mission accomplishment.

Individualism in Big Organizations

Despite the rather amabiguous tone of the preceding remarks on behavioral science, evidence indicates that increased attention to this area is beginning to make substantial contributions to the morale and productivity of employees. For years scientific management, starting with Frederick Taylor's discovery that the right sized shovel made a big difference in the productivity of the shoveler, has been guiding our industrial development. The Gilbreths, disciples of Taylor, learned to spell their name backwards, created the therblig, and time-and-motion study became a way of life. There was one best way of doing everything, and if a man could be told exactly how to do his job, he should have no problem.

We went on to mass production, assembly lines, and an industrial philosophy that we are today beginning to doubt. One of the assumptions of this philosophy that was never questioned too much was that a normal man would normally work at a normal pace. It was recognized—but not really faced, because no one knew how to face it—that a man who wanted to do more, would do more, and that for him the standards both as to production and quality might be far below his actual output. Herein lies the vast, untapped reservoir that

Herzberg, Gellerman, Ford, and other behavioral scientists are seeking to exploit. Herein also lies the problem of the relation of the individual to the large organization. Somewhere down the road may lie the problem of the very viability of our society itself. Certainly there are grounds for believing that the international and intranational problems which the future will bring are growing more and more importunate, and that they may be faced successfully only by a population of relatively high morale.

Turning from the general discussion above to our particular case—the Department of Defense—we are immediately conscious of the fact that it is a large, large organization, even larger than the largest corporations. What about the thought of Peter Wiles, that "high morale and personal pride are at least barely possible in large firms"? Can we have "pride in the achievements and aims of the group, faith in its leadership and ultimate success, a sense of fruitful personal participation in its work, and a devotion and loyalty to other members of the group"?

Morale in Defense Activities

On the whole, we do have this in the Armed Services and in their civilian supporting counterparts. By and large, the personnel, military and civilian, feel a pride in their organization and its aims. In times of crisis, when the country is united, as was generally true during World War II, the morale of the Department is high. A stanza that I learned in grade school comes back:

> Truce to feud and peace to faction,
> All forgot is party zeal;
> When the warships clear for action,
> When the blue battalions wheel.

In Kipling's poem about "Tommy Atkins," the British GI, he points out that Tommy is a great guy in time of war, but that in time of peace it's "chuck him out, the brute!"

"* * * * *appreciable bodies of personnel performing rather routine tasks * * * tend to lose their sense of mission. * * *

At the moment, of course, we are engaged in an undeclared war concerning which national opinion is sharply polarized. It is inevitable that some loss of morale, some "demotivation" of our personnel will occur as a result of the public utterances and demonstrations of the antiwar factions. Some also results from criticisms of the "military industrial complex," and of the "wasteful and extravagant procurement practices," "inefficient management resulting in huge cost overruns," and similar and dramatic utterances which seem to stimulate reader and listener interest under current conditions. Even the Fitzhugh report, which was presumably a careful study covering an extended period, makes rather extreme and (as yet) unsupported statements as to overstaffing in the headquarters of the Department.

Whereas all these tend to be detrimental to morale, on the whole their effect is less serious than it might be because of the firsthand knowledge of many of our personnel as to the numerous solid and exceptional achievements by components of the Department, and of their inherent confidence in the essentiality of the Department and its mission. However, the huge size of the Department and the necessity for arranging it in a bureaucratic fashion creates appreciable bodies of personnel performing rather routine tasks. These personnel often do not have firsthand knowledge of the exceptional achievements of other components of the Department and tend to lose their sense of mission of the overall Defense effort. Outstanding events may give their morale a shot in the arm—as all NASA employees must have received when man landed on the moon—but between such events they require communications to keep them informed of what the organization is doing and to provide an image with which they can identify.

The RIF Threat

At the present time a most powerful force is operating to demotivate Defense personnel—the shift in national priorities. The Defense budget, for years now traditionally about one-half the Federal budget, has dropped rapidly to about one-third of the budget, as the proportion allotted to the domestic agencies increases. Moreover, the rate of contraction seems to accelerate spasmodically, and uncertainty exists as to "when the other shoe will drop." Military strength and civilian employment are both decreasing rapidly. There is undoubtedly a strong impact on military morale, despite the fact that a large portion of the contraction can be accomplished by early voluntary release of personnel serving involuntarily. Without implying that this impact on the military can be ignored, this article will concern itself only with the demotivation of civilian employees of the Department.

There are no civilian employees serving involuntarily in the Department of Defense. They applied for and were hired into the jobs they now hold. They tend to be a stable work force—10 to 15 percent of them retire or separate voluntarily from their jobs each year, only about half the turnover rate in private industry. Most of the voluntary separations are in the lower or lesser-skilled grades. A reduction of the magnitude of the present one must therefore eliminate higher grade positions occupied by the more skilled employees utilizing the RIF (reduction in force) procedures.

Consider the effects on the morale and motivation of the individual. Let us say he has been working hard on a project that he considers fairly important. His supervisor calls him in and informs him that the project has been abandoned or cut back and that his job is being abolished. What an ego shock!

One of two things can happen to the man with a RIF notice: either he is laid off and goes out the gate, or he is given the offer of another job, probably at a lower grade, for which he is probably not as well qualified as he is for his present job, and possibly one occupied by someone in a lower retention subgroup. If he leaves, his morale is, of course, no longer a problem to the organization, but his departure does have an effect on those he leaves behind, who cannot avoid saying to themselves "next time it might happen to me." If he stays, his morale cannot avoid being decreased by the traumatic experience he has just undergone. His "sense of a fruitful personal participation" has been shattered by being told that the work he has been doing is not required. If he has displaced or "bumped" another employee, his feeling of "devotion and loyalty to other members of the group" has suffered a severe shock. Moreover, the job to which he has been reassigned is at best somewhat unfamiliar and may be at a level well below that which will challenge his ability. If he is entitled to saved pay and has gone to a lower grade his peers realize that he is being paid considerably more than they for doing the same work, creating feelings that are conducive to divisiveness rather than the unity that is needed for "a sense of common purpose."

For the employee who is the bumped rather than the bumper, much if not all of the above also applies. When you realize that it takes an average of three RIF actions to separate one employee, it becomes apparent that a large-scale RIF can inflict considerable trauma on the work force. While acknowledging that the man with the most severe problem is the one who has been involuntarily separated, managers must nevertheless actively concern themselves with the morale and motivation of those remaining in the work force if they are to keep the work force fully effective.

Anti-demotivational Measures

The need to combat the morale drop inevitably resulting from rapid contraction, to devise some kind of "antidemotivation" measures has been long recognized in the Office of the Assistant Secretary of Defense (Manpower and Reserve Affairs). Carl Clewlow, Deputy Assistant Secretary (Civilian Personnel Policy), speaking as a panelist dealing with "major organizational change and motivation" in the September 1970 Federal Management Improvement Conference outlined some of the measures that have been taken in this direction. Primary emphasis has been on the humanitarian objective of minimizing the number of people deprived of all employment income. Older, long-service employees have been encouraged to retire at reduced annuities in order that those who cannot yet retire could continue employment. Even greater use of this option is being sought by proposing legislation that will increase retirement options. The maximum use of natural attrition in accomplishing required reductions has been urged. Insofar as possible, job offers in other installations through the Defense Central Referral System are being made to employees being separated from their jobs. Sanctuaries have been created for some special "seed corn" groups such as apprentices and engineers-in-training whose discharge is not only unwise from a long-range planning point of view, but also might appear to the remainder of the work force as an illogical act.

In addition to these policy measures originating in the Office of the Secretary of Defense, activities that are undergoing closure or large RIF actions are making vigorous outplacement efforts through their personnel office. Efforts are made to place departing employees in other Defense installations or other Government agencies, or to find jobs for them in the private sector.

Nevertheless, all these efforts are but palliatives; they ease without curing. They must be used to the best of our abilities, but we must also accept the fact that during this reorientation of national priorities we in the Defense Department will suffer a continuing drop in morale and motivation. However, there will be periods of comparative stability in every activity, periods of normal operation during which some of the damage may be repaired.

Morale Is Relative

We are fortunate in Defense that we start our drop in morale and motivation from a relatively high level. Whereas not 100 percent true, this may safely be said of the vast majority of Defense installations. Despite all the palliatives that may be devised, it is only from this condition that salvation may be obtained. In other words, an organization must operate from strength if it is to survive a series of impacts that tend to weaken it. Managers must constantly manage so as to build up morale to the point where it can stand adversity. This type of management includes not only the required technical proficiency, but also ability in the art of leadership. The truth of this statement may be readily inferred from history, which is replete with incidents illustrative of the powerful influence of the true leaders. Unfortunately, the personnel researchers have not yet devised a method to select supervisors with outstanding potential for leadership, although it is generally conceded that it varies considerably among individuals. It is, however, accepted that the leadership ability of an individual can be improved. It is therefore a subject that warrants continuing study by a manager who would also be a leader.

Communication and Leadership

There is much good literature on leadership, some of it even being found under "management," a term suggestive of business efficiency and ROI, and therefore more salable to corporations investing in courses for executive development. This article cannot attempt anything like a comprehensive discussion of leadership. However, if I were to be asked to furnish from the many axioms of leadership the one that first comes to mind as being commonly abused in the Federal Government, to name a fault whose correction might do a great deal for establishing and maintaining morale, I think I would say something like this: Do not operate quite so much in secrecy; its value is badly overestimated, for people are not as easily fooled as we think, or at least not for as long as we think.

How often have you been sworn to secrecy on some closely held administrative matter, only to be informed of it by your secretary, who heard about it in the ladies' room or some similar forum? If it has never happened to you, it is probably only because your secretary never confides in you. Try confiding in her for a change: confidence begets confidence, just as loyalty down begets loyalty up.

Let me summarize: the best approach to antidemotivation is to build, in quiet times, a morale so high that it can stand the demotivators that come in the hard times of RIF's and reorganizations; and the best way to build morale is to be a leader in the true sense of the word (see Webster's unabridged dictionary). □

KINDLING
INTELLECTUAL FIRES

By Lt. Col. A. S. Loughry, USMC

Purpose. The kindling of intellectual fires and inspiration of creative management was the objective of the Federal Management Improvement Conference held in Washington, D.C. on September 21–22, 1970. The catalyst for this gathering was the Presidential Executive Order 1509 of February 11, 1970. The conference agenda sought to address the most pressing problems facing government administrators today. This conference brought together 500 top level managers from departments and agencies in the executive branch. The conference leaders, that is the speakers, panelists and forum members, were recruited from among the government's most knowledgeable professionals in their respective fields.

Program. The conference consisted of eight plenary and 20 limited panel sessions. Each conferee had an opportunity to attend two panel sessions. The panels did not have a standard format with each panel chairman determining the method of operation for his panel. However, all panels were participative and conferees were expected to give as well as take. The forums were participative only to extent that conferees were able to submit written questions to the forum chairman during the session.

Proceedings. All panelists have been invited to contribute papers for publications in the proceedings of the conference. A copy of the proceedings will be available for purchase from the Superintendent of Documents.

Conference Planning. The major planning effort was handled by the newly created Office of Management and Budget. Significant contributions to the organization of the conference were made by the Civil Service Commission and by the Office of the Secretary of Defense.

The following is a synopsis of the panel findings:

• *Improving Labor Management Relations in Government.*—This panel noted the heavy growth and increased militancy of unions in the Federal Government, which adds a new major dimension to federal manager responsibilities. The panel felt that more strikes and more militancy can be expected in the future from federal unions. The immediate solutions that should be examined include binding arbitration. Increasing the scope of employee issues to include subjects other than wages and monetary benefits, educating employees to recognize federal jurisdiction, and creating new attitudes toward federal unions among federal managers. They believe the grievance procedures must be improved, and federal managers must come more "face to face" with federal employees.

• *Applying the Systems Approach to Management.*—This panel focused its attention on the growing recognition that the management of large and complex organizations can only be effective through a systems approach. The contrast between systems base solutions to management problems and piece-meal responses were delineated. The panel recognized that the systems approach like any other management technique requires a liberal amount of common sense, and that it is really objective oriented. They concluded that one project's solutions may be another's problems in today's complex society and that computers and other modern techniques are not always the ultimate solution to federal management problems.

• *Attacking the Critical Management Problems.*—This panel addressed the separation of management from policy development, the problems of holding personnel accountable for performance and improving the task of measuring results. Their conclusions were that the separation of management, that is day-to-day operations, from policymaking becomes more disastrous at the higher levels of the Federal Government. There is a tendency to focus management effort on the popular issues of the day. One of the primary failings in Gov-

ernment is the lack of feedback and followthrough to evaluate and measure the effectiveness of programs.

• *Establishing Goals and Measuring Effectiveness.*—This subject was found to be the most frequently discussed across the entire conference. The failure to establish goals and objectives was one of the major failings in Federal Government. Panels felt that goals must be measurable and that milestones are essential for effective program evaluation. Feedback was considered to be a mandatory technique. They recognized that human resources were essential and that participation by lower echelons in goal setting was an effective solution to many problems. However, top management must reserve the right to make the final decision regarding goals and objective of programs. There is a tendency to engage in nitpicking goals which have no real value to the program.

• *Streamlining the Delivery of Federal Assistance to States and Communities.*—This panel produced a considerable amount of agreement and disagreement. The primary areas of agreement were that there are too many federally controlled programs and too much Federal intervention in the affairs of State and local governments. Federal Governments have failed to clearly set goals and guidelines that State and local governments can implement. They have provided such vague goals as "eliminate hunger," which have thoroughly confused most State and local administrators particularly in the area of welfare programs. There should be more horizontal relationships in the affairs of the State and local governments and there should be more horizontal relationships between the various Federal departments such as the Departments of Defense and Health, Education, and Welfare. The major area of disagreement was on how to correct these problems. The major issue was revenue sharing.

• *Bridging the Communications Gap.*—Four major solutions were derived from this panel. One was that the personality and training of the individual Federal manager had appreciable bearing on the width of the communication gap within his organization. Secondly, that organizations and their structures contribute severely to communication failures. The panel also believed that decisionmakers are being bombarded with useless data which makes it difficult to sort out essential information which they need. The final conclusion was there was too much covering up to avoid criticism. They felt that a lot of this was brought about by the press and the desire of the press to expose any and all errors no matter how severe or how trivial.

• *Evaluating Agency Management.*—It was concluded that audits, validations and financial management techniques are permanently established in the Federal Government and that there is a need for an office such as the Office of Management and Budget. There has been too much separation of planning between financial and operations managers and there

have been too many decisions based upon monetary values rather than real objectives needs. There has been more paperwork with very little improvement in financial management. There must be improvement in auditor-manager relations, that is in elimination of the defensive management syndrome and the prosecuting audit syndrome. There should be a more constructive approach toward evaluations.

• *Making Management Decisions Financially Meaningful.*—The reward and punishment of people and the Federal system was discussed and the conclusion was that there should be more accountability for decisions.

• *Managing Environmental Protection Programs.*—This panel believed that clearer goals and objectives were necessary to achieve success in environmental programs. They emphasized the need for more State and local involvement and the need for all Federal agencies to become involved.

• *Major Organizational Change and Motivation.*—Improving and maintaining the motivation of the work force during periods of major organizational change is a constant problem for Federal managers. The large scale movement of a organization from one department to another, a major adjustment in the size of the work force requiring substantial reductions of personnel, or the orientation of the work force to a new program all have the potential of creating confusion and insecurity in the work force unless they are effectively managed. Attention to the cost of organizational changes should be stressed and more efforts should be made to inform and educate Federal employees as to the need for valid changes.

Summary

There is unrest and concern among senior Federal executives as to the management techniques and approaches to problems of the country, and that there is a general, sincere interest in correcting these situations.

There has been too much centralization of programs and the momentum is to return the authority back to State and local governments, and to provide assistance to these organizations through the use of Federal regional agencies that supply the systems approach to the major problems confronting the Nation.

There has been to much dependence upon the new technologies and management science techniques and this dependence has been at the sacrifice of human values and resources.

There has been very little follow through on programs and as a result many programs have failed.

The major failing of the Federal Government has been its inability at the higher levels to provide clear policy, objectives and goals which can be implemented by Federal managers, Federal employees, and State and local governments. □

THE PRESIDENTIAL MANAGEMENT IMPROVEMENT AWARDS are the highest awards granted under the Government-wide management improvement program established February 16, 1970. These awards recognize a limited number of individuals, teams, or organizational units whose achievements during the year have most improved operating effectiveness within the Federal Government or whose ideas have substantially reduced governmental costs.

The heads of Federal Departments and Agencies nominate a few from among thousands for this high honor. The President's Advisory Council on Management Improvement, composed of 10 executives from the private sector of the Nation with broad backgrounds in management, advises the President on final selection. The 15 most exceptional contributions are recognized by Presidential Management Improvement Awards. Other nominees may be selected to receive Presidential Certificates of Management Improvement.

The President's Advisory Council on Management Improvement is chaired by Gen. Bernard Schriever, USAF (Ret.). Members of the Council are: Dwayne O. Andreas, Minneapolis, Minn.; Wayne M. Hoffman, Los Angeles, Calif.; Gail Melick, Park Ridge, Ill.; Allen W. Merrell, Grosse Pointe Farms, Mich.; Rufus Edward Miles, Jr., Princeton, N.J.; John W. Rollins, Greenville, Del.; Thomas Staudt, Birmingham, Mich.; Wayne E. Thompson, Minneapolis, Minn.; Charles Wyly, Dallas, Tex.

IMPROVEMENT AWARDS
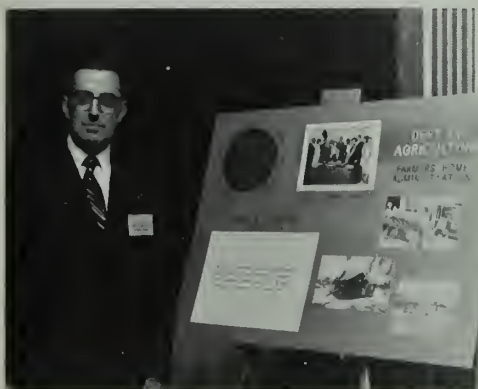
Rural Housing Division
Farmers Home Administration
Department of Agriculture

The Rural Housing Division with a small staff of 14 employees, has made a great impact on improvement of housing for low-income families in rural areas. Due to its creative approaches, more than 78,000 families in 3,000 rural communities obtained decent, safe, and sanitary housing. Savings of $3.4 million in administrative costs came from decentralization of loan approval authority, simplification of paperwork, improved inspections, and improved assistance to contractors, builders, and local officials. (Mr. Louis D. Malotky, Director of the Rural Housing Division is shown in photo with poster of the improvement action.)

1st Logistical Command
Department of the Army

While engaged in direct supply support of combat in Vietnam, the 1st Logistical Command demonstrated the highest standard of business efficiency and economy. The Command cut in half the time required to process a requisition, identified and redistributed $25 million of excess stocks, reduced over-age requisitions by 16 percent, and reevaluated requisitions to cancel $29.7 million of invalid demands. The Command also documented 217 cost reduction actions that saved $30 million in fiscal year 1970. (The award was presented to Maj. Gen. Walter J. Woolwine, U.S. Army (photo) who was the Commander during the period when the improvement actions were taken.)


Caren C. Ciampini
Inventory Management Specialist
Hill Air Force Base, Utah

Mrs. Ciampini is an Inventory Management Specialist—a position that calls more for accurate forecasting than for technical insights. Yet, Mrs. Ciampini's analysis of a major project to modernize Minuteman II caused engineering personnel to reevaluate the technical requirement. As a result, the original plan to buy 32 new telemetry packages for the required modernization was cancelled. Instead, the existing equipment was modified to satisfy the technical requirement. Her insights saved the Air Force $6.6 million in fiscal year 1970. (Photo shows Mrs. Ciamipni receiving her award from Mr. Caspar Weinberger, Deputy Director, Office, Management and Budget, as Secretary of the Air Force Seamans looks on.)

Vincent P. Barazzone
Project Coordinator
Naval Electronics Systems Command
Department of the Navy

Mr. Barazzone found ways to prove out all critical elements in a major Navy digital communication system before the system was deployed worldwide. The simulations and tests that he developed produced data that removed "goldplating," preventing overbuying of spare parts; and otherwise increased the Navy's capability to support the system. This advance check-out verified the system's operational effectiveness and saved the Government $15.6 million in fiscal year 1970. (Photo shows Mr. Barazzone receiving the award from Mr. Weinberger as Secretary of the Navy John Chaffee looks on.)
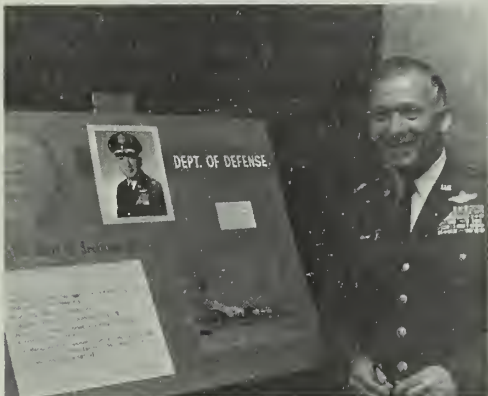
437th Military Airlift Wing
Department of the Air Force

This Air Force organization has flown over 500,000 accident-free hours since 1966 (including combat airlift missions in Southeast Asia). The Wing has a near 100 percent reliability rate for departures. Its operational readiness rate is 20 percent better than the norm. While maintaining these high levels of effectiveness, the Wing also instituted 131 management improvement actions in fiscal year 1970 to reduce costs that year by $2.7 million—an amount equivalent to 3 percent of the Wing's annual operating costs. (Photo: the Wing is commanded by Brig. Gen. Clare T. Ireland, Jr., U.S. Air Force.)

Edward J. Hekman
Administrator, Food and Nutrition
U.S. Department of Agriculture

Mr. Hekman has led an intensified attack on hunger in the United States and has furnished new help and new hope in previously untouched hard core areas. During the last 15 months, 3.1 million additional people in needy families have received benefits from either the Food Stamp or Commodity Distribution Programs; the number of counties and cities without a family food assistance program has been cut from 440 to less than 20; and the school lunch programs now serve 5 million needy children daily as compared to the previous total of 3 million.

Federal Assistance Streamlining Task Force
Department of Health, Education, and Welfare

The Federal Assistance Streamlining Task Force, under the outstanding leadership of Mr. Ronald Brand, successfully modernized the complex network of Federal grant policies in HEW. The effort reduced paperwork, speeded processing, and, most important, made it easier for State and local agencies to do their jobs. It freed 1,200 man-years of State and Federal manpower and saved $9 million. (Photo shows Mr. Brand, Secretary of HEW, Elliott Richardson and Mr. Weinberger.)
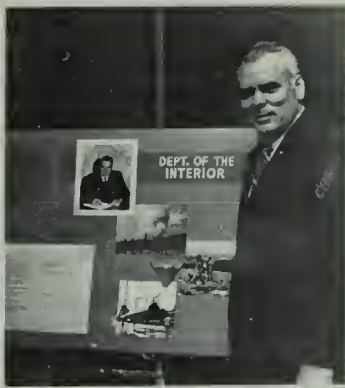
Burton W. Silcock
Director, Alaska State Office
Department of Interior

Mr. Silcock has used his extraordinary abilities to increase the protection, development and proper use of the vital natural resources of the State of Alaska. Under his inspirational leadership and direction it is estimated that ½ million acres of forest land were saved from forest fire in fiscal year 1970. This achievement is valued at $3 1/3 million. In addition, his negotiations on the proposed Trans-Alaska oil pipeline were characterized as a landmark in progressive environmental management. (Mr. Silcock is shown with a poster depicting the management improvement actions.)

George M. Belk
Chief, Chiminal Investigation Division
Department of Justice

Mr. Belk conceived and personally directed an innovative enforcement approach against the major national and international systems of narcotics and dangerous drug distributions, which resulted in the arrest of 160 key figures. His radical departure from previous procedures has disrupted the narcotic traffic and kept millions of dollars worth of dangerous drugs out of the market—thereby sparing an inestimable amount of human suffering. (Photo shows Mr. Belk receiving the award from Mr. Weinberger as Mr. John E. Ingersoll, Director, Bureau of Narcotics and Dangerous Drugs, looks on.)

Richard E. Miller
Associate Manpower Administrator
Department of Labor

Mr. Miller, as the principal advisor in the Manpower Administration, has consolidated program administration, eliminated duplicative activities, decentralized authority, and installed financial procedures and controls. His efforts have reduced program support costs by 15 percent with a 4-percent increase of overall staff, returned $5 million to the Government through an intensified contract closeout program, and cut costs by $10 million in contractor-held property.
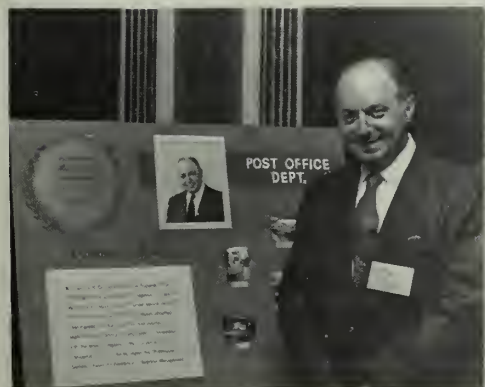
Clarence B. Gels
Regional Director, Minneapolis, Minn.
Post Office Department

Mr. Gels has used his outstanding managerial talent to introduce improved techniques within the Minneapolis region which produced dollar savings and better service in the face of increased mail volume. Through his personal efforts and his leadership in motivating others, the Post Office Department realized savings of $3.3 million from increased employee productivity and reduced operating cost totalling $6.6 million. (Mr. Gels is shown with a poster describing his improvement action.)

Harold Harriman
Assistant Director for Documentation and Procedures,
    Office of Facilities
Department of Transportation

Mr. Harriman successfully coordinated industry, Government, and international requirements to bring about the most important improvement in transportation documentation in U.S. history—an internationally accepted bill of lading that will be used by all modes of transportation. This goal has been sought for 15 years * * * it will reduce documentation by 25 percent and save $500,000 annually. (Mr. Harriman was introduced by Department of Transportation's Assistant Secretary for Administration Alan Dean (center) and received his award from Mr. Weinberger.)

Lester W. Plumly
Chief, Disbursing Officer
Division of Disbursement
Department of Treasury

Mr. Plumly's organization each year accurately produces and correctly mails approximately ½ billion checks and savings bonds to millions of people throughout the world. Under his management leadership, the staff of his division has increased its productivity by 168 percent. It is handling a 60-percent increase in work volume with 40 percent less manpower. The increased productivity resulted in savings of $1.2 million during 1967–69.

Excess Property Program
Agency for International Development

The Office of Government Property Resources, under the management of Lester David and David Farr and with the guidance of James Kearns, Deputy Assistant Administrator, has achieved a dramatic improvement in the effectiveness of its Excess Property Program. Improvements include major upgrading of equipment quality, accelerated response to customers, better inventory control, increased control of contractors, a staff reduction from 134 to 49, and an overall savings of $1.6 million in operating expense. (Mr. David is shown with a poster depicting the management action.)

Van A. Wente
Chief, Systems Development Branch
Scientific and Technical Information Division
National Aeronautics and Space Administration

Mr. Wente was personally responsible for the conception, planning, design, and successful implementation of the first computer system of its kind to achieve practical operation in the on-line retrieval of scientific, technical, and management information. Through the use of a nationwide network of cathode-ray tube terminals linked with a time shared computer, NASA scientists, engineers, and managers now have direct access to a massive store of research and development documentation with far greater effectiveness and significantly lower cost than ever before. (Photo shows Mr. Wente receiving his award from Mr. Weinberger as Dr. George Low, Deputy Administrator, NASA, looks on.)

Selected to Receive The Presidential Certificate of Management Improvement

Department of Agriculture

Individual

David H. Askegaard,
Director, Office of Program Analysis, Rural Electrification Administration

Richard P. Bartlett, Jr.,
Director, Statistical Staff, Consumer and Marketing Service

Department of Commerce

Individual

Jack O. Padrick,
Director, Office of Field Services

Group—Bureau of Census

Jefferson D. McPike,
Statistical Survey Manager

Robert L. Rountree,
General Supply Officer

Cecil B. Matthews,
Administrative and Publications Program Manager

Robert C. Long,
Property Management Officer

Robert Makoff,
Assistant to the Division Chief (Censuses)

Department of Defense—Army

Individual

Lowell A. Anderson,
Communications Specialist, U.S. Army Safeguard System Command

Lt. Col. Freddie C. Austin,
Staff Officer, Office, Assistant Chief of Staff for Force Development

Alfred E. Bohnert,
Supervisory General Engineer, U.S. Army Electronics Command

Brig. Gen. George P. Holm,
Commanding General, Korea Support Command (Provisional)

Eiichi G. Minamide,
Distribution Facilities Specialist, Sharpe Army Depot

Clarence M. Poole,
Physical Examination Supervisory Specialist, Martin Army Hospital

Mrs. Eddie L. Pylant,
Inventory Management Specialist, U.S. Army Missile Command

Kenneth R. Williams,
Industrial Engineering Technician, Lexington-Blue Grass Army Depot

Group—U.S. Army Corps of Engineers, Louisville District

Howard Boatman,
Supervisory Civil Engineer

Robert E. Cody,
Supervisory Civil Engineer

William M. Gossage,
General Engineer

Alfred J. Graves,
Structural Engineer

Jack E. Kiper,
Supervisory Civil Engineer

Group—U.S. Army Corps of Engineers, Baltimore District

Major John H. Kenworthy

Tallman J. Mahan

Carl L. Schletzer

Group—Hydro-Electric Design Branch, North Pacific Division, U.S. Army Corps of Engineers

Hilary A. Hoadley,
Mechanical Engineer

Kenneth J. Laumand,
Structural Engineer

Glenn R. Meloy,
Electrical Engineer

Melvin J. Setvin,
Civil Engineer

Group—U.S. Army Ammunition Procurement and Supply Agency, U.S. Army Munitions Command

Navy

Individual

LCDR Jack Bruce,
MOC Regimental Commander, Naval Air Technical
Training Center

Aubrey C. Clark,
Foreman (Leadingman) Electrical, Mare Island Naval
Shipyard, Naval Ship Systems Command

Lt. Clyde W. Hartsell,
Guided Missile Electronics Officer, Naval Ordnance
Systems Command

LCDR Samuel D. Hoffman,
Assistant Readiness/Training Officer, Amphibious
Force, U.S. Atlantic Fleet

Mrs. Clare L. Manley,
Budget Officer, Naval Supply System Command

Walter K. Sterling,
Engineering Technician, Naval Air Systems Command

Robert R. Thompson,
Inventory Management Specialist, Naval Supply
Systems Command

Lt. Doren J. Two,
Assistant Military Personnel/Family Services Officer,
Naval Air Station, Whidbey Island

C. L. Wood,
General Supply Officer, Strategic Systems Project Office

Group—

Naval Air Station, Whidbey Island, Washington, Capt.
A. W. Smith, Commanding Officer

Marine Corps Base, Camp Pendleton, Calif., Maj.
Gen. Donn J. Robertson, Commanding General

Air Force

Individual

S/Sgt. John W. Beach,
Radar Maintenance Chief, 776th Radar Squadron

T/Sgt. Raymond W. Bezio,
Non-Commissioned Officer in Charge, Life Support
Section, 84th Fighter Interceptor Squadron

Capt. Richard S. Brown,
Launch Activity Engineer, Air Force Systems Command

T/Sgt. Richard L. Kawzinski,
Loadmaster Instructor, 39th Military Airlift Squadron

Lawrence A. Roselle,
General Foreman-Aircraft System Overhaul, 926th
Tactical Airlift Group (Air Force Reserve)

Lt. Col. Thomas J. V. Thorpe,
Director of Fuses, Guns, and Accessories, Hq, Arma-
ment Development and Test Center

Capt. Howell N. Watson, Jr.,
Photo Intelligence Staff Officer, 548th Reconnaissance
Technical Group

T/Sgt. Thomas R. Wolfe,
Crew Chief, RC 130 S Aircraft, 4416 Test Squadron,
Tactical Air Command

Group—Oklahoma Air Materiel Area

Robert C. Morrison,
Supervisory Industrial Specialist

Robert S. Shafer,
Supervisory Equipment Specialist

Defense Supply Agency

Individual

Robert L. Evelsizor,
Supervisory General Engineer, Defense Construction
Supply Center

Sidney Fruman,
Supervisory Inventory Management Specialist, Defense
Industrial Supply Center

Group—Defense Documentation Center

Thomas T. Lin,
Physical Scientist

Fred Meier,
Physical Scientist

Group—

Defense Contract Administration Services Region, Los
Angeles, Calif.—Brig. Gen. John S. Chandler,
Commander

Department of Health, Education, and Welfare

Group—

Smallpox Eradication Program, Dr. W. H. Foege, Act-
ing Director

Department of Housing and Urban Development

Group—

Working Group on Regional Realignment

Department of the Interior

Individual

Richard P. Nalesnik, Director,
Division of Water Quality Standards, Federal Water
Quality Administration

Group—

M. A. Marston and Support Staff, Division of Federal
Aid, Bureau of Sport Fisheries and Wildlife

Department of Labor

Individual

Eldon L. Hayman,
Budget Analyst, Manpower Administration

Department of State

Group—

Task Forces on Personnel and Management

Department of Transportation

Individual

Rex R. Brown,
Electronic Engineer, Federal Aviation Administration
  (Awarded Posthumously)
John Moundalexis,
Management Analysis Officer, Federal Aviation Admin-
  istration
William L. Pirkle,
Computer Specialist, Federal Highway Administration

Department of Treasury

Individual

Myles J. Ambrose,
Commissioner of Customs, Bureau of Customs
Donald G. Elsberry,
Director, Systems Division, Internal Revenue Service

Group—

Management Analysis Division
J. Elton Greenlee,
Director, Office of Management and Organization

Atomic Energy Commission

Individual

John P. Abbadessa,
Controller
John P. Kresky,
Chief, Data Processing Evaluation and Control Branch
Garland R. Proco,
Management Analyst
James F. Wagner,
Management Analyst

Central Intelligence Agency

Individual

Dr. John M. Clarke,
Director of Planning, Programing, and Budgeting

Civil Service Commission

Individual

Irving Kator,
Assistant Executive Director

General Services Administration

Individual

Paul R. Browne,
Procurement Officer, Federal Supply Service

Group—

Secure Communications Design Team
Mark H. Handwerk,
Electronic Technician
David L. Matson,
Electronic Technician
James H. McAllister,
Electronic Technician

National Aeronautics and Space Administration

Group—

Interplanetary Monitoring Platforms Management
  Team

Panama Canal Company

Individual

Captain Alvin L. Gallin,
Marine Director MT–V
Philip L. Steers, Jr.,
Comptroller

Veterans Administration

Individual

Harry D. Dodson,
Assistant Director for Liquidation, Loan Guaranty
  Service
Maynard Spitz,
Systems Manager, Personnel and Accounting Inter-
  grated Pay Data System
James T. Taaffe, Jr.,
Director, Compensation, Pension, and Education
  Service
Mrs. June F. Thompson,
Contract Compliance Specialist, Contract Compliance
  Service

Group—

Field Operations Review Committee, Department of
  Veterans Benefits

THE SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301
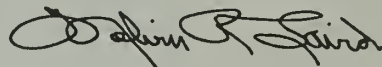
November 25, 1970

MEMORANDUM FOR Secretaries of the Military Departments
                              Director, Defense Supply Agency
SUBJECT: Presidential Management Improvement Awards

I had the opportunity to acquaint myself with the
accomplishments represented by these awards at the time I
transmitted the DoD nominations to the Director of the Office
of Management and Budget. I must say that I was quite
impressed with the ingenuity and management ability
evidenced in every case.

You know how strongly I feel about having our operating
people receive the recognition due them for finding ways to
run the Defense Department more effectively and more
economically. That is why I was gratified to find that Defense
personnel and organizations received 47 of the 96
Government-wide awards announced by the White House
last September. I am sure that you are as pleased as I am
with this achievement and with the knowledge that these
exceptionally meritorious awards were supplemented in
FY 1970 by over 40,000 similar management improvement
actions contributed by other employees of the Military
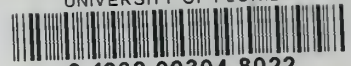Departments and the Defense Supply Agency.

I would like to have the recipients of these awards know that
along with this Presidential recognition and my own gratitude
go the congratulations of George P. Shultz, Director of the
Office of Management and Budget, for a job well done.

"He is a muddled fool," said Sancho of his don—for Sancho knew a windmill when he saw one. Too few bureaucrats do, according to a conference panel consisting of an administrator, a legislator, a systems analyst, and a program planner. This panel concluded that far too many governmental managers tilt at distractions while the really gutty problems flow on unchallenged.

DELLA VALLE

FLARE

The
Federal Management
Improvement
Conference